



W2NPT

The Resonator

Official Newsletter of The Fair Lawn (NJ) Amateur Radio Club

Volume 4, Number 5

www.FairLawnARC.org

May 2019

From The President:

To FLARC members:

Thank you to all who were able to participate in the many events during April. Earth Day at Paterson Great Falls National Historical Park was a great day spreading the knowledge of amateur radio to all the kids. Fair Lawn ARES KB2FLA took 2nd place in NNJ for the 5-Watt Challenge.

The club is setting up a special event station at Garretson Forge Special event May 4th as W2G for the 300th anniversary of the Peter Garretson house on River Road. Come out and operate and visit the special event station.

Don't forget about Portable Day 2019 with BARA at Fair Lawn Memorial Park. You will have a chance to operate our QRP rigs but also participate in a pedestrian fox hunt. Come check out all the setups and get some idea on how you could make your own portable station.

Get ready for ARRL Field Day 2019! John W2JLH and Van W2DLT are working out the details for this year. Contact them if you have any questions on the event.

Brad – KM2C
FLARC President

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Member Profile

NAME: **Stan Sanders** CALL: **KC2K**

I started off in the family business -- a wholesale tobacco and confectionery distributor in New York City. In 1992 we sold the business and at that time I was certified by the FAA as a Commercial Pilot. Flying was always my hobby besides amateur radio. I secured a position as a flight instructor at a flight school at Caldwell airport. At that school I rose to the position of Chief Flight Instructor. I specialized in instructing others in the techniques of Instrument Flight. Also known as "Blind Flying."

I would point out that being a Ham helped me in that vocation since communication by radio is very important in Instrument flight.

But I digress, when the Korean War broke out, I joined the Navy. I was assigned to a Destroyer Escort vessel. This is where Amateur Radio became a tremendous asset for me. The Bureau of Naval Personnel sent out a notice that any Amateur Radio operator who wanted to ship over to Naval Air and become a Station Keeper let them know. I raised my hand. A Station Keeper's job was to maintain the communication equipment and to teach others in its use and how to maintain it. I was given a promoted in rank and assigned to a Naval Air Reserve Training Unit at Lakehurst NJ. What could be better? Sixty miles from my home in the Bronx. The food at Lakehurst was great. If you didn't like what was on the menu the salad table could provide a full meal. I was given the opportunity to fly as an Aviation Radio Man in Blimps. While flying, every hour I had to send our position as provided to me by the pilot. On board the blimp they had an ART13 and provided me with a straight key. Well one day I decided to bring my Bug from home and use that instead of the straight key. I must point out that a blimp is not the most stable platform to send CW. When we came back to the base, I was welcomed with a chorus of shouts saying "how was your trip to Alaska?" That was the last time I used the bug in a blimp. But after the war was over budgets were cut and anybody who wanted to be transferred to the inactive reserve could do so. I had enough and volunteered to leave. Back to my old job.

Continued on page 4.

The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2018 Officers, Committees and Assignments

President	Brad Kerber	KM2C
Vice President	Lowell Van't Slot	W2DLT
Treasurer	Al Rasmussen	WA2OWL
Secretary	Randy Smith	WU2S
Trustee	Skip Barker	KD2BRV
Trustee	Don Cassarini	N2PRT
Field Day	Steve Wraga	WA2BYX
Member Services	Judith Shaw	KC2LTM
Publicity	Ed Efchak	WX2R
Publicity	Gene Ottenheimer	WO2W
Publicity	Susan Frank	W6SKT
Program	Lowell Vant Slot	W2DLT
Publicity	Karl Frank	W2KBF
Publicity	Brad Kerber (<i>ex officio</i>)	KM2C
Social Media	Dave Marotti	NK2Q
Video/YouTube	Thom Guida	W2NZ
VE Liaison	Gene Ottenheimer	WO2W
VE Liaison	Pete Senesi	KD2BMX
Education	Gordon Beattie	W2TTT
Education	Randy Smith	WU2S
Education	John L. Howard	K2JLH
Education	Fred Wawra	W2ABE
History	Fred Belghaus	W2AAB
Health and Welfare	Judith Shaw	KC2LTM
Photographer	Don Cassarini	N2PRT
W2NPT Trustee	Paul Cornett	W2IP
Technical	Paul Cornett	W2IP
Technical	Randy Smith	WU2S
Technical	Fred Wawra	W2ABE
RACES Director	Dave Gotlib	KD2MOB
RACES Liaison	Steve Wraga	WA2BYX
Newsletter Editor	Ed Efchak	WX2R
FL Town Liaison	Gene Ottenheimer	WO2W
Net Scheduler	Brian Cirulnick	KD2KLN
Quartermaster	Brian Cirulnick	KD2KLN

Fair Lawn RACES/ARES Corner



May is here, and with the warmer temperatures come the addition of Fair Lawn-RACES and Fair Lawn-ARES activities. FL-ARES will be working with Bergen County ARES, Passaic County ARES and other local ARES organizations as part of the NNJ Section of the ARRL Hudson Division.

During the month of April FL-ARES participated in the 5 Watt Challenge. With only 5 watts of power (and no repeater), we were able to make quite a few contacts and submitted 45 points to the NNJ-ARES Section Leader - John W2VTW. Thank you to Ed WX2R and others who participated in the 5 Watt Challenge. This was the first year FL-ARES participated using our new call sign - KB2FLA.

Also in April, and as part of our training plan, Randy WU2S, Karl W2KBF, Brian KD2KLN, Fred W2AAB and others mapped the Fair Lawn terrain and other landmarks just outside Fair Lawn to check if 5 Watts (without using a repeater) is enough power to contact the FL-ARES station located at the FLARC within the Community Center. In general, most locations were fine!! Job well done by the FL-ARES team.

On Saturday, May 4th, ARES assisted in providing communications for the Lincoln Park Chapel Run. Thank you Gordon W2TTT of BC-ARES for running this event.

FL-ARES will be providing communications support along with the FLARC at the Fair Lawn Memorial Day Parade on Monday, May 27th. More details will be provided at our FL-ARES meeting taking place on Friday, May 10th at 1800 at the FL Senior Center (before the guest speaker).

ARES through the ARRL is undergoing a 21st century makeover - the timing can't be any better. Please see the ARRL-ARES article linked below.

Continued on page 17.

MASTER EVENT CALENDAR

May 4, 2019 Garretson House 300th Anniversary Special Event Station - W2G
May 10, 2019 ** Bud Trench AA3B "Using Propagation Tools for Contesting and DXing"
May 11, 2019 Portable Day/Mini Fox Hunt With BARA
June 9, 2019 Fair Lawn Street Fair (Radburn)
June 14, 2019 ** Ron Bosco WB2GAI "DXpedition To Crete"
June 22-23, 2019 Field Day, Memorial Park, Fair Lawn
July 17, 2019 Vanfest IV at W2DLT Lords Valley PA (after Sussex hamfest)
July 19, 2019 Rich Phoenix "TIS And The Creation Of A Community Radio Station"
(Tentative)
August 16, 2019 FLARC Vintage Night II (at FLARC)
September 20, 2019 Tim K3LR "An Inside Look At A Superstation"
October 20, 2019 Fair Lawn Street Fair (River Road)
TBD "Bring Your Own Boat Anchor" --
An evening of storytelling and demonstrations
**** Second Friday of this month**



Hidetsugu Yagi's 130th Birthday Google Doodle

Follow FLARC ON THE WEB

Facebook: <http://facebook.FairLawnARC.org>

Twitter: [@FairLawnARC](https://twitter.com/FairLawnARC)

Blog: <http://blog.FairLawnARC.org>

Youtube: <http://youtube.FairLawnARC.org>

Website: <http://FairLawnARC.org>

FLARC VEC Exams

Our next test sessions are scheduled for **Saturday, May 11th** beginning at 09:00 at the Community Center. No advanced registration is required but always appreciated. The fee is \$15.00 (cash or check).

Please bring positive identification (license, passport, etc.), your original license and a copy, original CSCE and a copy (if credit is needed).

The full exam schedule is on the club calendar at the FairLawnARC.org website. For further information contact VE-Liaison@FairLawnARC.org.

Please refer also to the "License Exams" link on the main website--

<http://testing.FairLawnARC.org>

We appreciate your support of the Fair Lawn Amateur Radio Club!

This is your Club! Be part of it!

Member Profile (Continued)

I got interested in radio back in the late 1940s. In high school. I built my first broadcast band receiver. A two tube superhet receiver. A 117L7 "a combined local oscillator and mixer" followed by an audio amplifier. The tube type escapes me. My parents marveled at my achievement and I basked in their pride. It was offset by the fact that the 117L7 lit up like the kitchen light. The filament in a 117L7 was powered by 117 volts AC. In 1947 I earned my first ham ticket W2TIW. I had to go downtown in Manhattan to the FCC office and take the test for a Class B license which included copying and sending code at 13 WPM. A Class A license was equivalent to an extra class today. The Class C license was for those who could not get to the FCC in Manhattan. I've been a licensed Ham for the past 72 years.

In my High School, De Witt Clinton in the Bronx, they had an Amateur Radio Club, W2AJJ which I joined. The finals at the club were a pair of TZ40s in Push Pull configuration. It helped cement my love for Amateur Radio.

I enjoyed building my own rigs. My receiver was a 6K8 - again a Local Oscillator and mixer combined. Plus an IF Stage and an Audio Amplifier. The transmitter was a 6L6 xtal oscillator and an 807 final. (It also was sold commercially -- known as a Millen Exciter) The final input was 25 Watts. My antenna was a long piece of wire coming from my 3rd floor apartment to a flat top on the roof of the 6 story apartment building. The maintainance man was very friendly and helped me put it up. I was able to make many local contacts and occasionally was able to work into NJ and Pennsylvania. The antenna was not very efficient. My final construction project was an SSB transmitter with a 6146 in the final. I donated it to the club since it represented skill in construction. I don't know what the club did with it. I asked but no one seemed to know.

I also enjoyed operating CW since phone did not seem like much of an achievement.

I joined the club back in the late 70's and became very friendly with Frank Leonard. Besides ham radio he, as I, was also interested in electric trains and he had quite a nice setup. After a short time I became President of the club. We had maybe about 25 members at the time. One of whom was Gene Oppenheimer.

Continued on next page.

Please Note: Operating W2NPT

Starting in January club trustees will have sign-in sheets for all operating positions. There is a clipboard at Operating Position #1, #2 (digital) and #4 with a form on which to sign up for half-hour time slots. No longer first come-first served, in fairness to all who want to use our club equipment and the new antennas. More details to follow.

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

<http://apparel.FairLawnARC.org>
<http://auction.FairLawnARC.org>
<http://blog.FairLawnARC.org>
<http://calendar.FairLawnARC.org>
<http://events.FairLawnARC.org>
<http://exams.FairLawnARC.org>
<http://facebook.FairLawnARC.org>
<http://testing.FairLawnARC.org>
<http://news.FairLawnARC.org>
<http://swap.FairLawnARC.org>
<http://tech.FairLawnARC.org>
<http://youtube.FairLawnARC.org>

NEW !

<https://groups.io/g/FairLawnARC>



April 2019 Blog Traffic

Wow did we get blitzed this month. We're up against 5 Fridays a year ago for one reason. Here is the data:

	April 2019	April 2018	Change
Views	603	928	-35%
Visitors	287	511	-44%
Posts	13	11	+18%

There is new content nearly every day so it's really worth the look to both FairLawnARC.org and the blog.

<http://blog.FairLawnARC.org>

Member Profile, continued

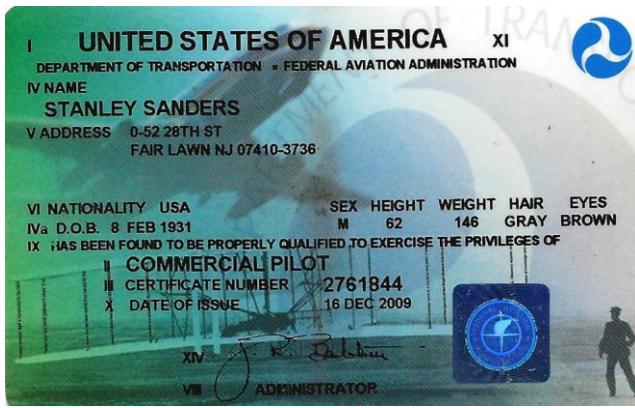
The best part was Field Day which we held at Garrett Mountain. This was a sleep over event. One Field Day while I was sleeping in my sleeping bag we were visited by a family of Skunks. That was an experience. On occasions I gave speeches to the members one of which I remember was on Smith Charts. I stopped going to the club as it conflicted with my work schedule.

The Club has evolved as you all know. I do enjoy learning new things. That is what brought me back to the Club. One of the ways I can support the club is by operating CW on special occasions. At 88 years of age there is not much else I can do for the club.

As far as the future I believe the club is on the right track and Brad seems to be a good leader going forward. I have belonged to the ARRL for many years.



Stan KC2K



KC2K's pilot license

Club Apparel--Still Time For Field Day!

Club apparel is always in vogue. Red is always in and your club friends all have them... you want a shirt or jacket for the next FLARC event!

Don't forget.... they're easy to order.

Go to www.hamthreads.com or visit <http://apparel.FairLawnARC.org> to check out the item selection that is posted on the FLARC website (with pictures and prices). Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo.

Note:

RED is the primary and preferred club standard shirt color.



Brad KM2C proudly wears the FLARC colors!

Congratulations!

Pete (KD2BMX) reports the results of the April 13, 2019 FLARC VEC Amateur Radio Exam Sessions:

Total Number of Candidates served: 2
Congrats to 2 passes!!

Name	Call	License Earned
Todd Varjian	AC2ZA	Technician
John Blake	KD2RXX	Technician

Going To Dayton?

If you're going to Hamvention, let Ed WX2R know about it. We'll try to catch up as best we can and maybe even find each other for a group shot at the AREDN booth.

Take pictures and make notes... we'll look to do a soapbox story for the June Resonator.



BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such a gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. **The club is sponsored by the Borough of Fair Lawn.** The club meets every Friday at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM.

Visitors **ARE ALWAYS** welcome at our meetings.

FLARC operates the W2NPT repeater (145.470- PL 167.9) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has over one hundred paid members. Dues are currently \$25 per year/\$20 for new members.

For more information, please see our website, at
<http://membership.FairLawnARC.org>

World Amateur Radio Day Is April 18th -- and FLARC Participated!!

Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It was on this day in 1925 that the International Amateur Radio Union (IARU) was formed in Paris.

The World Radio Network and the World Friendship Net participated in World Amateur Radio Day 2019 as hosts with a 24 hour net open on ILRP and Allstar. Ed WX2R got us into the official logbook.

FLARC was open from 2 p.m. until close for casual WARD operation and "open house." As one of only a handful of sanctioned IARU operations it was both fun and an honor to participate.

See the accompanying story in *The Resonator*.

Interested in Chasing DX?

A casual group of FLARCs including Van W2DLT, John KD2NRS, Brad KM2C, Karl W2KBF, Nomar NP4H, Steve WI2W, Larry WA2ALY, and Fred W2AAB have formed an email group to keep each other in touch in (real) time of when the rare or interesting ones show up to chase. Interested? See or contact Van W2DLT.



**FAIR LAWN'S
MINISTRY OF TECHNOLOGY!
With New Antennas On The Roof!**



Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	Pete	KB2BMX
February	Marco	KC2ZMA
March	Ron	KC2TBD
April	Kai	K2TRW
May	Larry	WA2ALY
June	Dave	N8MAR
July	Steve	WI2W
August	Thom	W2NZ
September	Brian	KD2KLN
October	Brad	KM2C
November	Al	WA2OWL
December	George	W3EH
January 2017	Fred	W2ABE
February	Dave	KD2MOB
March	Randy	WU2S
April	Lee	KD2DRS
May	Gene	WO2W
June	Carol	KD2NMV
July	Kevin	KC2KCC
August	Robert	KD2NOG
September	Robert	KD2BKD
October	John	KD2NRS
November	Fred	W2AAB
December	Margaret	W2GB
January 2018	Brian	KD2OAZ
February	Bennett	KO2OK
March	Van	W2DLT
April	Aly	ALØY
May	Bruce	NJ2BK
June	Dave	N2AAM
July	Karl and Susan	W2KBF and W6SKT
August	Steve	KA2YRA
September	Paul	K2PJC
October	Skip	KD2BRV
November	Ed	WX2R
December	Tom	N2AAX

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!

Back issues are also available on our website.

<http://newsletters.fairlawnarc.org>

Theoretics Demystified

When we talk about propagation, what do we mean? As a new ham or someone who is interested in radio, it is how radio waves act at different frequencies, at different geological locations and at different times of the day. The grey line is just one example. It occurs at the edge of day or night as the sunlight's influence waxes or wanes thereby changing the angles of reflectivity and that change thereby enables communication over much greater distances than otherwise possible. Again that is all dependent upon geographical location, frequency and power and the particular mode that is in use. Please remember that this column's aim is to 'demystify' the technical aspects of ham radio and Scientifics in general for the new ham and others interested in the hobby.

The most interesting and challenging thing is that radio propagation is a dynamic phenomenon that it is constantly changing due to time of day, (the reflective ionosphere layers change due to the presence (think influence) or not of the sun's solar wind) and frequency used. Therefore no two excursions into radio communications are ever the same. This is particularly true on the HF bands 1.8-30.0 megahertz (mega/million cycles per second). As you go higher in the spectrum the characteristics of propagation change as communication becomes more line of sight like visible light. Because of that, as you go higher in frequency the wave length becomes shorter and so do the antennas and how those emanated waves behave.

When you go down to the very low frequencies the wave lengths are extremely long and penetrate the earth and the sea and those wave lengths are used for submarine and mining communications. Because of this there are negligible effects from the ionosphere. Also the power needed to communicate is less than on the higher bands but the antennas and inductors needed are extremely large (at least in the past) There are now two new ham bands open one is just below the AM broadcast band and the other is much lower. On both of these 'new' bands power permitted is very low. Special FCC permission is needed to operate on these bands to avoid interference with existing services.

Continued on page 43

2019 Near and Far Net Check-In's

Now in its third year, the FLARC *Near and Far* net is chugging along each week. Here is list of our check-ins beginning on New Year's Night in no particular order. Mondays at 8PM on the repeater.

Name	Call
Dave	N2AAM
Gene	WO2W
Van	W2DLT
Karl	W2KBF
Stan	KC2K
Ed	WX2R
Steve	WA2BYX
Brian	KD2KLN
Ken	W2KAC
John	K2BIX
Fred	W2AAB
Bob	KD2BKD
Randy	WU2S
Dave	KD2JIP
Larry	KD2QFI
Steve	WI2W
Brad	KM2C
Thom	WN2Z
Ron	KC2TBD
Dave	KD2MOB
Bob	KM4CPU
Bob	KE0OPX
Phil	KA2SEY
Dave	NK2Q
Noel	N2OEL
Ray	KD2RBW
Larry	KD2QFI
Matt	K2FTP
Paul	K2PJC
Tom	WB2KWD
Brian	KD2OAZ
Bob	N2HIP
Al	KC2SAV
Chris	W2TU
Anton	K2PLB
Ray	KD2RIK
Watson	K3WAT
Kevin	KD2RJM
Roger	K2RRB
Jonathan	KC2RRK

2019 Member Profiles

With Volume 4, we begin a new list of featured members in a monthly profile. See past profiles elsewhere in *The Resonator* to check back in the archives to see each featured member's background.

Month	Name	Call Sign
January 2019	Dave	KD2JIP
February	Jim	K2ZO
March	Zach	KC2RSS
April	Bob	N2SU

2019 Near and Far Net Check-Ins (Continued)

Name	Call
Andrew	KC2G
Kenneth	KC2OKR
Kenny	W2KAC
Fred	W2ABE
Judith	KC2LTM
Tyrell	KB2TJK

In A Nutshell

For May there is Dayton Hamvention and finally SPRING! Now is the time to upgrade and fix winter damage done to your antennas, keeping in mind safety first.

Remember that for most all of us ham radio is a hobby and not worth risking life and limb. Keeping this in mind there are many outdoor activities to pursue. One is 'fox' hunting where a small transmitter/beacon is hidden and eager hams try to locate it using various direction finding techniques.

The idea is to have fun while trying to find it along with the fellowship of working with other hams. For more information look elsewhere in this our fine publication the Resonator and in QST!

Happy hamming!
Fred W2ABE, 73!

Tech Talk May 2019

How Can You Be in Two Places at Once, When You're Really Nowhere at All?

There are lots of ways to indicate your location on planet Earth. One of the most familiar methods is to use latitude and longitude. These could be specified in either degrees, minutes and seconds or in decimal degrees. In many amateur radio contests, your location is an important component of the exchange needed to complete a valid contact. Often a state or province identifier is enough to tell your location. But in VHF and other contests a higher resolution locator is needed to better calculate the distance between stations and to accommodate the shorter range of the radio transmissions.

Here is where the **Maidenhead grid square locator** comes into use. This is a system that uses an alternating combination of two letters followed by two numbers to define a rectangle on the Earth's surface ^{Figure 1}. Dr. John Morris G4ANB originally devised the system and it was adopted at a meeting of the IARU VHF Working Group in **Maidenhead, England** in 1980 ^{Ref. 1}.

The Earth is first divided into 324 fields of 18 zones of longitude of 20° each, and 18 zones of latitude 10° each. These zones are encoded with the letters "A" through "R" ^{Figure 2}. Then each field is further divided into 100 squares of 2° of longitude by 1° of latitude ^{Figure 3}. The squares are designated by a pair of numbers. The square's longitude is encoded from West to East with "0" through "9", followed by the latitude encoded from South to North with "0" through "9" ^{Ref 2 Figure 6}.

If we look at a familiar Maidenhead grid square locator FN20, ^{Figure 4} we see that it defines a region just above the Southwest corner of a field near 76 degrees West longitude and 40 degrees North latitude . Each square is further subdivided into 576 sub-squares designated with a pair of lowercase letters "a" through "x" ^{Figure 7}. The additional letters – now a total of 24 – are used because the smaller divisions are a good fit for commonly used degrees, minutes and seconds of geolocating. The club station at FLARC is in grid square FN20ww. ^{Figure 5} When we do the math or look at the map, FN20ww comprises an area of about 4.3 miles in width from West to East and about 2.9 miles from South to North. This sub-square area comprises just under 12.5 square miles or about 7,980 acres. Close enough, maybe, for a radio contest; but what if you needed to find a person or a building in that area? Obviously, you need some higher-resolution encoding.

We can continue with the Maidenhead scheme of 324 "squares," then divide each into 100 smaller units, then sub-divide each of those into 324 smaller units, then sub-divide again into 100 still smaller pieces. We can continue this method until we reach a very fine level of detail.

Let's go to the fourth pair of characters – FN20ww53 – to locate FLARC at the Community Center. ^{Figure 8} Here we have defined an area of about 80 acres which includes the high school and playing fields. Pretty good, but still a lot of ground to search. Could we go further? Yes, but the Maidenhead definitions officially only go this far. Some hams use extensions to use the fifth and sixth pairs to define even smaller areas. This might be helpful if you are operating microwave radios and looking to set new distance records.

With a fifth pair in our locator we see that FLARC is at FN20ww53px. This defines an area of about 95 feet by 64 feet – around the size of a small city lot. If we decided to go to a sixth pair of designators – FN20ww53px55 – we have identified an area about the size of a small shed.

Is there another reason we might want to use the Maidenhead locator scheme instead of the good, old, reliable latitude and longitude?

Tech Talk May 2019, continued.

John Huggins KX4O offers an interesting reason to use the extended Maidenhead grid locator system – transmission efficiency.^{Ref 3} John says:

"The character count in the Maidenhead Locator System is remarkably thrifty. Let's compare the three traditional formats with Maidenhead on character count remembering the D, DM and DMS labels represent the format for a string containing both latitude AND longitude."

He shows that the Maidenhead systems uses the fewest number of characters to transmit equivalent location data.^{Figure 10} He also compared transmission times for various formats using CW to send the data.^{Figure 11} John thinks there is some merit in considering Maidenhead encoding for locations data, but there are some caveats.

He concludes:

"Maidenhead mixes letters and numbers about even. Since letters, on average, are shorter than numbers and punctuation, the Maidenhead system benefits with much shorter send times.

The Maidenhead Locator System wins big on sending time, but will anyone know how to interpret your position information? Would you know how to create the 4th, 5th and 6th pairs from your GPS? I can't really answer that here but now, at least, you have a little more information."

So, there you have it. You may not know where you are going next, but these grids squares will help you know where you have been.

73,
Randy WU2S

References:

1. https://en.wikipedia.org/wiki/Maidenhead_Locator_System#Description_of_the_system
2. Grid locator intro <http://www.mapability.com/ei8ic/maps/gridloc.php>
3. Geographic Coordinate Transmission Efficiency
<https://www.hamradio.me/uncategorized/geographic-coordinate-transmission-efficiency.html>
4. <https://www.hamradio.me/charts/maidenhead-calculator.php>
5. http://www.levinecentral.com/ham/grid_square.php
6. Locator high resolution http://www.sarl.org.za/public/QRA/Abt_Locators.asp
7. Length of degree latitude and longitude
<https://gis.stackexchange.com/questions/142326/calculating-longitude-length-in-miles>
8. Length calculator <http://www.csgnetwork.com/degreeellllavcalc.html>
9. [Grid locator map](https://www.egloff.eu/googlemap_v3/carto.php) https://www.egloff.eu/googlemap_v3/carto.php
10. Find distance by grids <https://www.karukoti.com/maidenhead-grid-square-locator/?grid=GB>
11. K7FRY grid map <http://k7fry.com/grid/>

FLARC Participates In 2019 World Amateur Radio Day

On April 18th, FLARC was one of a handful of global stations to participate in the annual IARU (International Amateur Radio Union) event celebrating the founding of the organization in 1925. Thirty-three club members and guests attended and 30 managed to operate W2NPT. Despite poor band conditions the club worked 67 stations including Gibraltar, St Kitts/Nevis, Martinique and beautiful Lords Valley, PA.

The club was featured on the IARU website and received global publicity from Southgate Amateur Radio News, QRZ and locally in northjersey.com, the Community News, and Tapinto.

Thanks to everyone who took part -- a really fun club effort. Would we do it again? Friesom what we hear, a resounding "yes."



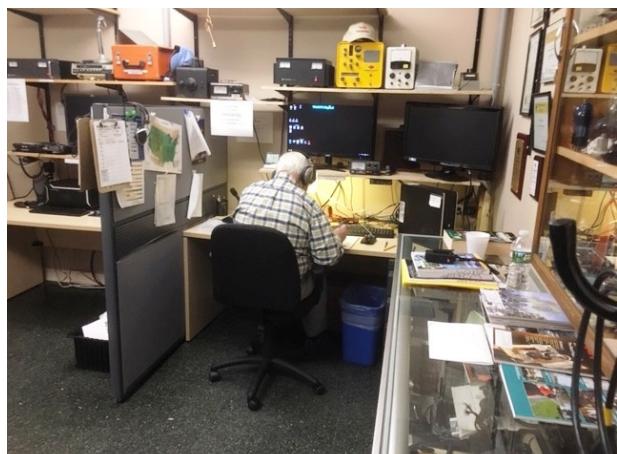
The clubhouse door welcomed guests to World Amateur Radio Day



Part of the crowd of members and guests



Guest John KA2HOI got a chance to work the new Flex at position 4



Fred W2AAB worked CW and bands that didn't cooperate to the importance of the day.

Around The Shack

Hal Kennedy N4GG/4

QRO Considerations

A lot of us run the legal limit – 1.5 KW. As DXers, contesters or just wanting to work through poor conditions there are situations where “full power” seems like the way to go.

Unfortunately, as we move from a 100 watt or 200 watt transceiver to a full 1.5 KW amp, the “plug and play” approach to station design may no longer suffice. We need to understand a few technical details in order to insure safe and reliable operating. Notice those two concerns - safety and reliability.

QRO is a topic where a few simple tables (below) and almost no math can tell us all we need to know about the magnitude of what's entailed. Ohms law plus a little understanding of SWR were all I used to create Tables I and II.

At 1,500 watts, voltages and currents are high, and as we move away from 50 ohms (SWR 1:1) the voltages and currents involved move much higher. As we evaluate this let's assume our antennas present a load that's purely resistive, which avoids dealing with reactance. Reactance complicates the math and, I think, adds nothing to the conversation.

Table I lists the peak voltage and current on a 50 ohm transmission line as a function of SWR, at 1,500 watts. Fifteen hundred watts delivered into a perfect 50 ohm load (SWR 1:1) is 5.5 amps RMS (7.7 amps peak) and 274 volts RMS (385 volts peak). We are downright shy about sticking our fingers into a 120 volt AC outlet.... the voltage at the output connector of our amplifiers and down our coaxial cable transmission lines is much higher than that at QRO power levels – and it's not 60 Hz AC either, it's RF. RF tends to both shock and burn.

Looking at Tables I and II, notice each SWR is listed twice. Due to its definition, SWR is an “absolute value” – it doesn't have a sign. A 25 ohm load yields a 2:1 SWR but so does a 100 ohm load.

The antennas we use as hams vary from a few ohms (e.g., a short vertical) to thousands of ohms (e.g., an end-fed half-wave) – so Tables I and II cover a wide range of SWR. We can use high SWR antennas because antenna tuners (and baluns) can transform high SWR back to 1:1 at the transmitter and many of us use them to do that. In those cases, the voltage and current at the transmitter and input to the antenna tuner are per the first row in Table I – 7.7 amps peak, 385 volts peak, SWR 1:1. But the voltage and current at the output of the antenna tuner and on the transmission line are dictated by the antenna's characteristics and that could be any row in the table.

Table I is for a “50 ohm system,” – it's the table to use for a 50 ohm coax transmission line. Table II is for a “450 ohm system” – it's the table to use for open wire line, ladder line or “window line” transmission lines.

So let's take a hard look at the tables and see the implications for safety and reliability. *Safety first* as the ARRL Handbook says. Looking at Table I, even at an SWR of 1:1 the peak RF voltage is sufficient to cause very nasty burns and injury. For a high SWR off-resonance antenna example look at the 10:1 SWR row. 1,200 volts might occur anywhere from the output of an antenna tuner up to the antenna terminals. I just wrote “up to the antenna terminals” but sometimes the antenna terminals are at the ground. Ground mounted verticals will have nearly 400 volts at the base when the SWR is 1:1 and can have 1,200 volts (or more) at the base when off resonance. That's enough voltage to electrocute animals and to start fires! Is part of your off-center fed dipole or ground-fed vertical touching dry leaves? At 1,500 watts you have a recipe for disaster.

Around The Shack

QRO power antenna tuners need a few words at this point, as these have safety and reliability issues to consider. There have been many, many QRO antenna tuner models for sale over the years – of many types and descriptions. In addition to SO-239s for their output connections, many also include a single unprotected terminal at the rear for tuning a single wire antenna and others have two terminals at the rear for feeding balanced lines. In some tuners, these terminals are “hot” even when the tuner is being used “coax in – coax out.” The voltage on these terminals can be higher than those in Tables I and II – depending on the circuitry within the tuner. Objects and YOU need to stay clear of these terminals. On the subject of reliability, QRO antenna tuners are notorious for burning up. Again, Tables I and II tell the story. The components in a QRO tuner must handle as much as 20 amps and thousands of volts, over a very wide frequency range. The components in the box are always heavy duty, expensive, and not always up to the task. I encourage everyone interested in QRO tuners to read the February, 2003 QST article “QST Reviews High Power Antenna Tuners,” available in the QST archives. That article convinced me to use Ten Tec 238B (or C) antenna tuners – a decision I have never regretted.

Assessing station reliability at QRO power requires examining every element from the amplifier to the antenna, and the number of possible items is nearly endless. Here are a few common ones:

- RG-8X is rated at 1,000W max (at 10 MHz) and 2,500 volts maximum. By spec, it is not suitable for QRO. I have used it occasionally at 1.5 KW and have never had a failure, but it does get warm and I can't recommend it. RG-214's maximum ratings are 3,700 watts and 7,000 volts (peak). RG-214 and most 3/8 inch and larger coax meet our needs.
- How about antenna switches and baluns? Many are rated at 1.5KW or “full legal power” but their ratings seldom mention SWR. They will hold up to the conditions of Table I, Row 1 (SWR 1:1), but what about 5:1 SWR – which is a realistic case if we have an antenna tuner in line at the shack end?
- Another common item is “lightning arresters.” We don't want a “lightning arrester” to trigger when transmitting QRO power into a 2:1 SWR and that's about 550 volts. The “lightning arrester” commonly sold to hams as a commercial-quality device, rated for 1.5 KW, does not mention SWR on the data sheet! “Lightning arresters” are a good subject for a future column but notice I always refer to them in quotes.
- Antenna parts also belong on this non-exhaustive list. Whether your antennas are bought-off-the-shelf or DIY, there will be insulators, wire, and sometimes traps, phasing harnesses, top/bottom/both stack switches, matching components and coupling or decoupling sleeves. Are all the components rated to handle the voltage and current shown in Tables I and II? How about when it's raining?



Around The Shack

**Table I – Peak Transmission Line Voltage and Current vs. SWR
1500 Watts, 50 Ohm System**

Antenna SWR	Voltage Current		
	Resistance	Peak (Volts)	Peak (Amps)
1:1	50 ohms	385	7.7
2:1	25 ohms	273	10.9
2:1	100 ohms	546	5.5
3:1	16.6 ohms	223	13.4
3:1	150 ohms	670	4.5
5:1	10 ohms	173	17.3
5:1	250 ohms	864	3.5
10:1	5 ohms	122	24.4
10:1	500 ohms	1,220	2.4

**Table II – Peak Transmission Line Voltage and Current vs. SWR
1500 Watts, 450 Ohm System**

SWR	Antenna Resistance	Voltage Current	
		Peak (Volts)	Peak (Amps)
1:1	450 ohms	1,160	2.6
2:1	225 ohms	820	3.6
2:1	900 ohms	1,640	1.8
3:1	150 ohms	670	4.5
3:1	1,350 ohms	2,006	1.5
5:1	90 ohms	518	5.8
5:1	2,250 ohms	2,590	1.2
10:1	45 ohms	366	8.1
10:1	4,500 ohms	3,665	0.8

Around The Shack

Let's bring this month's column to a close by looking at a frequently suggested "all-band" antenna -- a 100 foot doublet center-fed with 450 ohm balanced line. Table III lists the highest voltage and current seen on the transmission line, by band. Note, the location of current maximum and voltage maximum can be anywhere: from the antenna tuner output, to somewhere along the transmission line, to the antenna terminals.

Where the highest values occur depends on the frequency of operation and the length of the transmission line. Also, current and voltage peaks will occur at multiple locations for transmission lines longer than $\frac{1}{2}$ wavelength. On 160 meters, the maximum values are 11 KV and 28 amps! This antenna is not practical for use on 160 meters at QRO power. On 80 through 10 meters the currents and voltages are still high, but quality ladder line can handle the values listed. The issue then becomes the antenna tuner, matching network(s), switches, etc. that may not be up to the task.

Table III – Peak Transmission Line Voltage and Current by Band
100 ft center-fed doublet, 50 feet high
450 ohm feedline, 200 feet long
1,500 Watts

Freq MHz	Peak Voltage (Volts)	Peak Current (Amps)
1.8	11,150	28.5
3.6	5,230	13.0
7.1	2,660	6.6
10.1	3,840	9.4
14.1	2,390	5.9
18.1	2,760	6.8
21.1	3,030	7.5
24.9	1,850	4.5
28.5	2,640	6.5

I look forward to hearing your BIG SIGNAL on our next QSO – but please don't burn anything up, especially yourself!

73,
Hal
N4GG/4

Additional FLARC Station Openers Announced

In order to increase the number of days the club can be opened, the following members have been either volunteered or appointed to open the station. The schedule may take a bit to fall into place, but here are the those besides Council members or trustees:

CallCa	Name
NK2Q	Dave
W2NZ	Thom
W2KBF	Karl
KD2MOB	Dave
NP4H	Nomar
W3EH	George
W2AAB	Fred
WX2R	Ed
KD2KLN	Brian

FLARC And Related Call Signs

Club Call	W2NPT
RACES	KB2FLR
ARES	KB2FLA

Rare FLARC Saturday VE Sighting

At the April 13th test session we had a gaggle of VEs -- worth a group picture. Thom W2NZ showed up right after we took it so pretend you see him. And Stan K3KKH has recently joined!



L TO R: KD2BMX, WO2W, K2RSS, KD2DRS, NS2U, WX2R, KC2ORS, K2JK and W2TU

The New Flex Radios Are In!!

by Brad, our FLARC President

I have some excellent news, both the radios have been installed in the club house. Thank you all again who donated so much to the club so we could make these new radios and accessories a reality. These new radios have brought the club into the future of ham radio. Having the new radios will allow us to meet commitment to educate everyone in the club about Software Defined Radios (SDR). The purchase of these radios will continue to grow with the club along with SDR technology since they can be continually updated with new firmware/software packages w/o removing the cover. These radios will continue to be relevant for many years to come.

The 6400M is located at Position 4 and the 6400 is located at Position 1. Both radios have been setup and configured to operate CW and SSB modes. I have created some default profiles to quickly jump between modes or you can simply switch modes like a normal radio. Both stations have microphones, a Bencher paddle, and Station 4 also has a Bencher straight key.

Both stations have been configured for use with N1MM+. I donated two new 1GB Ethernet switches at both stations to allow the computer and radios to connect to the network. Station 1 requires the computer to operate the radio. All the required software has been installed and configured. A second monitor will be installed at Station 1 to allow the operator to control/view the radio on one and permit logging/lookups on the other. Station 4 can be operated from the front panel of the radio and logging on the PC. We have plans to purchase new laptops for the stations and will likely replace the computers going forward (external monitors will be at each station to make it easier to view than the laptop screen). We are leaving Station 2 as the designated digital mode station for now (focused on FT8 and its variants).

If someone is interested in operating digital modes on the new radios that can easily be accommodated. It is likely that will be setup on Station 1 if requested.



Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	Pete	KB2BMX
February	Marco	KC2ZMA
March	Ron	KC2TBD
April	Kai	K2TRW
May	Larry	WA2ALY
June	Dave	N8MAR
July	Steve	WI2W
August	Thom	W2NZ
September	Brian	KD2KLN
October	Brad	KM2C
November	Al	WA2OWL
December	George	W3EH
January 2017	Fred	W2ABE
February	Dave	KD2MOB
March	Randy	WU2S
April	Lee	KD2DRS
May	Gene	WO2W
June	Carol	KD2NMV
July	Kevin	KC2KCC
August	Robert	KD2NOG
September	Robert	KD2BKD
October	John	KD2NRS
November	Fred	W2AAB
December	Margaret	W2GB
January 2018	Brian	KD2OAZ
February	Bennett	KO2OK
March	Van	W2DLT
April	Aly	ALØY
May	Bruce	NJ2BK
June	Dave	N2AAM
July	Karl and Susan	W2KBF and W2SKT
August	Steve	KA2YRA
September	Paul	K2PJC
October	Skip	KD2BRV
November	Ed	WX2R
December	Tom	N2AAX

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!

Back issues are also available on our website.
<http://newsletters.FairLawnARC.org>

May 2019 Near and Far Net Controls

Here is the roster for net controls for the upcoming month as reported by Brian KD2KLN:

Date	Net Control
May 6	NP4H
May 13	TBD
May 20	N2AAM
May 27	Memorial Day

The Near and Far Net now averages close to 20 check-ins on an average week! Cool beans.

But we need more volunteers to be net controls -- if everyone takes their turn it's less burden on the others. And it's easy. Volunteer --- don't wait to be asked (unless you really want to be flattered).

RACES/ARES Corner (Continued)

New ARES plan aligns ARES with the needs of Served Agencies:
<http://www.arrl.org/news/new-plan-aligns-ares-with-the-needs-of-served-agencies>

Please sign up for various nets and activities taking place at the following email address: <https://arrl.volunteerhub.com/lp/nnj>

The FL-ARES KB2FLA Net takes place every Wednesday at 7:00 PM on the FLARC Repeater. Please join us every Wednesday for any updates, messages or activities which may take place.

Now, getting back to FL-RACES:

Our next FL-RACES KB2FLR net will take place on Wednesday, May 8th at 1930 hours. Please make a note of the new time. We may change the date to the first Wednesday of the month. The Fair Lawn ARC Repeater is used (RX 145.47 MHz / TX 144.87, PL TX Tone 167.9 Hz). Thank you to the Fair Lawn Amateur Radio Club for permitting FL-RACES for using the repeater. The volunteer efforts of our members are very much appreciated. Our monthly meetings usually take place right after the FLARC business meeting. Please join us for the next FL-RACES meeting. If you are interested in joining the Fair Lawn RACES, please contact me. You don't have to be a Fair Lawn resident to be a part of Fair Lawn RACES.

Thank you very much. 73. Dave KD2MOB

Bud Trench AA3B To Talk Propagation At May 10th FLARC Speaker Series

Bud Trench AA3B will be the featured speaker on May 10th (second Friday) at the Fair Lawn Senior Center. His topic will be "Using Propagation Tools for Contesting and DXing." The program begins at 7PM and refreshments will be served.

Bud Trench has made over 1.2 million QSOs since first being licensed in 1970. He has a passion for contesting. He was a WRTC competitor for the first time in 2018 and is on the DXCC Honor Roll. He holds the current World Record score for CQ WW CW in the Low Power Category. He is a member of the Frankford Radio Club, First Class CW Operators' Club, CW Ops, Activity Group CW – DL, CWJF, PA QSO Party Administration and ARRL. Bud earned a BSEE degree and Masters of Engineering Science degree from the Pennsylvania State University and retired in 2016 after working for Lockheed Martin for over 38 years. He currently resides in Boyertown, PA where he has been building his contest station since 1987.

Much of what Bud can teach us will be useful for normal DXing and regular HF operating -- not just contesting! He's got the experience to share.

Mark your calendar and plan to be at the Senior Center for a very educational evening!.



Bud Trench AA3B

Ron Bosco WB2GAI Highlights June 14th "DXpedition To Crete" * FLARC Speaker Program

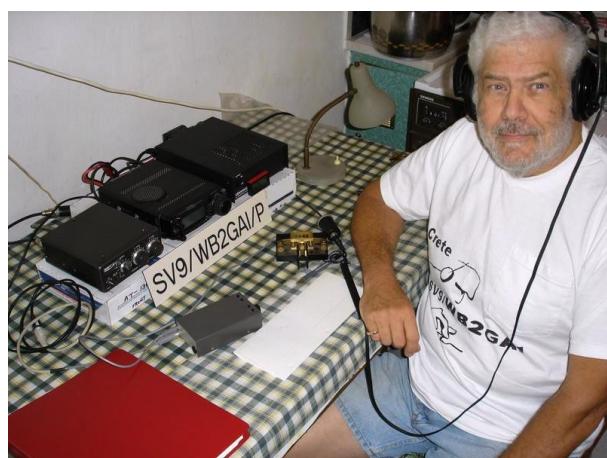
Ever wanted to do a DXpedition? Let's meet someone who has! Not only one, but five DXpeditions!!

Ron Bosco WB2GAI will highlight our June program on Monday, June 14th (second Friday) with the highlights of his 2017 trip to Crete. The program begins at 7PM and refreshments will be served.

Before retiring, Ron spent 33 years with the telephone company. After moving to Park Ridge from the Bronx he was able to set up a station "of my dreams." He needs four more DXCC countries -- BS7H Scarborough Reef, KH3 Johnston Island, P5 North Korea and ZS8 Marion Island. He is approaching 2135 on the band / country DXCC CW Challenge, and he has five band / countries on phone.

He has found CW to be the most challenging, as he claims that it requires brain power, not computer speed or programming. Conversational CW is his greatest challenge and fun. He is also interested in the history of CW and the types of apparatus used: straight key / sideswiper, (cootie) key / bugs / paddles. He has in his collection a 1914 Vibroplex bug and a Mercury S/N 111 paddle by N2DAN/SK.

See you on June 14th for a great night of DX!!



Ron WB2GAI on location in Crete



Now Here Is A Mobile Setup!!

This is Bob KD2BKD's cute little mobile set-up for the April 13th ARRL NNJ 5 Watt Challenge.

Bob camped out on Garrett Mountain FN20VW and worked down into Holmdel which KB2FLA couldn't hear.

More on The Challenge elsewhere in *The Resonator*.

Saturday, May 4: The Garretson Farm And Forge 300th Anniversary Special Event Station W2G



Garretson Farm and Forge, River Road, Fair Lawn

History is made in Fair Lawn, at one of the three pre-Revolutionary houses remaining, with station W2G.

WU2S Keeps The FLARC Mesh Networking Class In Full Swing

With more than a dozen members and guests on internet conference attendance, Randy WU2S kicked off the first-ever FLARC course in Mesh networking on 14 March with a second session on 11 April.

A high interest topic from the 2019 member survey, Randy has put together a comprehensive program of content for both online and in-clubhouse learning.

The class is monthly but registration is required.

Here is the link for the upcoming sessions:

<http://bit.ly/MESH-Class>

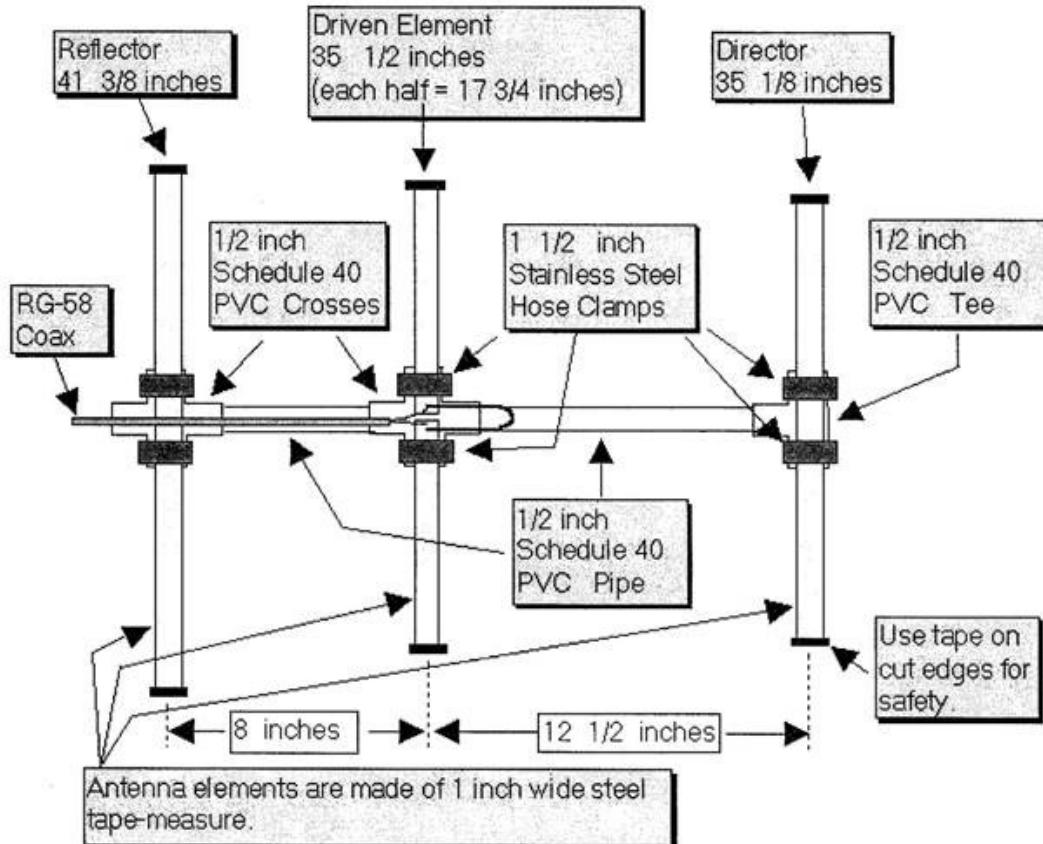
See Randy with questions or comments.

Future dates are:

May 9, 2019	7:00 PM
Jun 13, 2019	7:00 PM
Jul 11, 2019	7:00 PM
Aug 8, 2019	7:00 PM
Sep 12, 2019	7:00 PM

Proposal for Club Antenna Kit (Repeated This Month)

Karl W2KBF would like to know if FLARC members would be interested in building a WB2HOL-inspired Tape Measure 2 Meter Beam that is widely used for Foxhunting IF the parts were provided as a kit later this year. You may have some of the parts already lying around. With this in mind, I am providing a heads-up as to what parts to save. The design is available online and is summarized below. Note that we would use 3/4" PVC pipe, not 1/2" because it is easier to bend and tuck the elements into 3/4" cross pieces for transport.



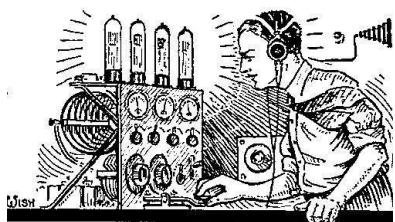
Most of these parts are available at Lowes or Home Depot and the antenna can be built for a total cost of about \$25. However, the cost will be greatly reduced if you have any of the following items on hand already:

- 1) Three PVC cross pieces (about \$2.50 each);
- 2) 112 inches of 1" steel tape (about \$4/antenna);
- 3) Six 3/4" to 1 3/4" stainless steel hose clamps (\$1.10 each);
- 4) Five feet of RG58 with BNC or SMA connector (about \$5);

While cleaning out my garage, I found an old 25 foot Stanley tape measure that I had stopped using and was going to throw out because the first few feet were beaten up. However the rest was OK. Enough for 2 antennas!

For more information, see Karl.

Karl W2KBF



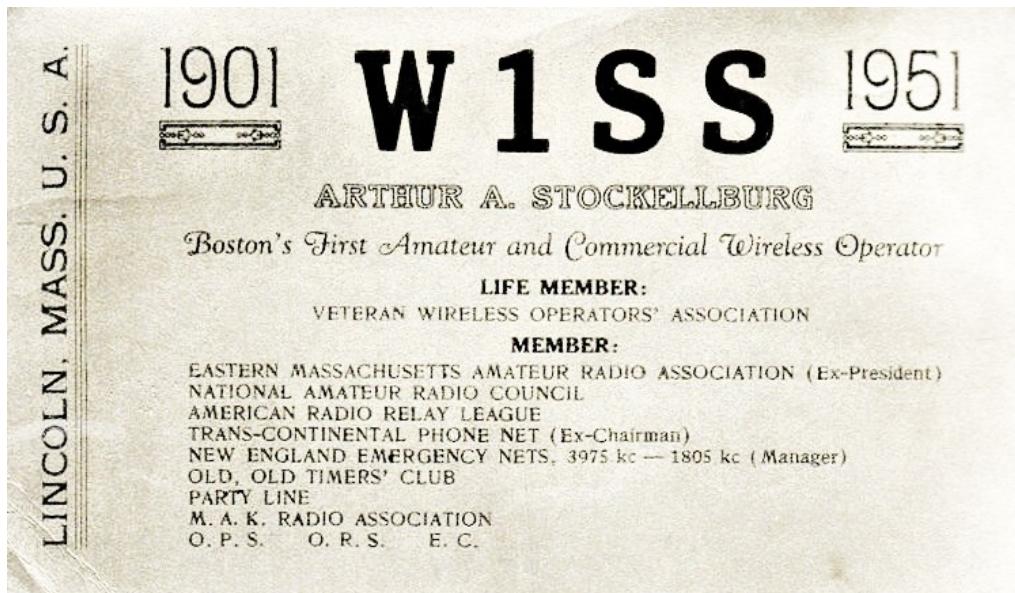
The Way We Were -- The Art Of The QSL (Part 10)

By Fred Belghaus W2AAB

"Other Famous Names"

Some of the most famous names in amateur radio were not those of manufacturers or equipment dealers, but people who have distinguished themselves in other ways. This month, we'll take a look at some of them.

Last month, we learned about the first licensed amateur operator in the United States, Irving Vermilya, W1ZE. Here's another "first," Boston's first amateur and commercial operator, Arthur Stockellburg, W1SS. Like Vermilya, Arthur traced his first amateur operation way back to 1901. His QSL from 1958 marked 57 years on the air:

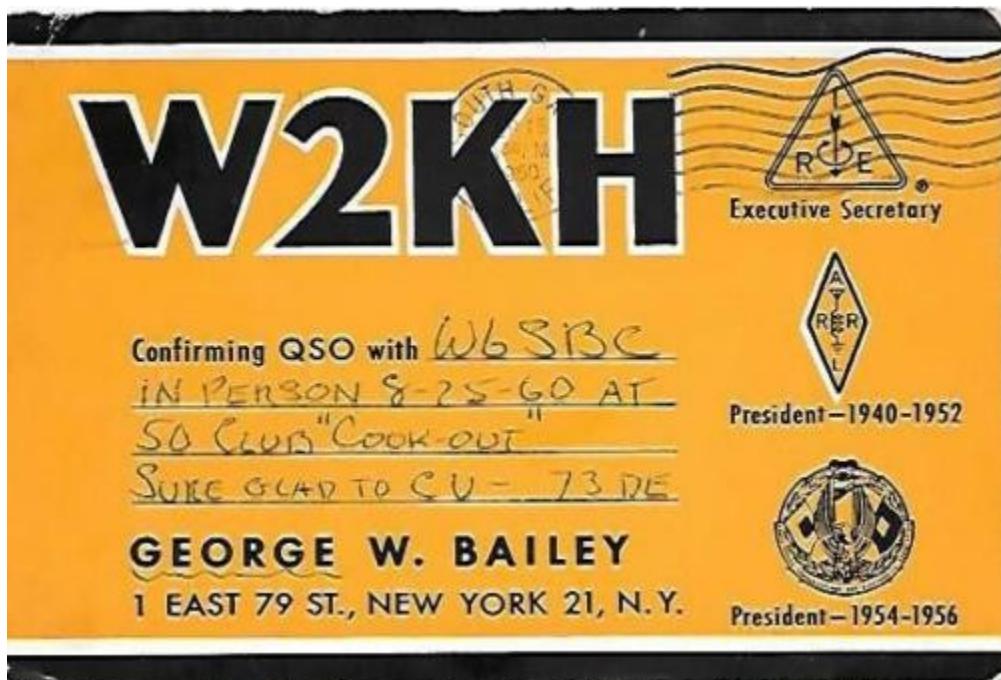


Arthur's earliest radio days are described in an article in *Radio & Television News* which also recognizes his contributions as an early member of Army MARS and active message handler on amateur traffic nets. (1)

Another famous ham, at least to old timers, was George Bailey, W2KH. George was President of the A.R.R.L. from 1940 to 1952, and was instrumental in the establishment of the first amateur radio station at the United Nations in 1948, with the call K2UN. George was a 1907 graduate of Harvard. During World War II, he worked for the Office of the Chief of Scientific Research and Development in Washington, D.C., and was awarded the Certificate of Merit from President Harry S. Truman. He also served on the Engineering Sciences Advisory Committee by appointment of Maj. Gen. Lewis B. Hershey, Director of the Selective Service Commission (a name well known to Vietnam-era Veterans and millions of kids awaiting induction). Bailey later served as President of the Armed Forces Communications and Electronics Association (AFCEA), the International Amateur Radio Union (IARU), and Executive Secretary of the Institute of Radio Engineers from 1945 to 1963, when the organization became the IEEE. (2)

The Way We Were

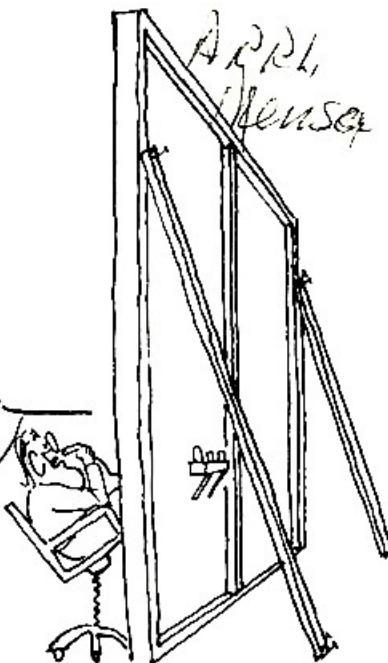
Here's George's QSL for a contact made in 1960:



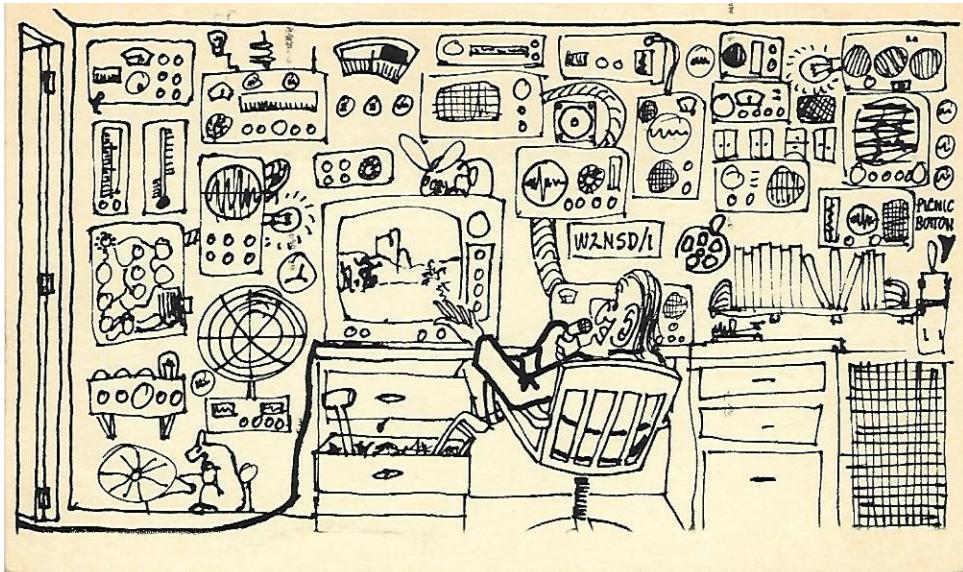
Among the ranks of the "famous," there are few individuals as well known as the former publisher of *73 Magazine*, among several other publishing ventures. Here's the QSL I received from him for a QSO on 2 meter FM back in 1971:

Tnx QSO W2CST
0700 GMFT 10-22-71
RPT 5.9 on 2 M. FM

W2CST
Wayne Green W2NSD/1
Peterborough NH 03458
U.S.A.



The Way We Were

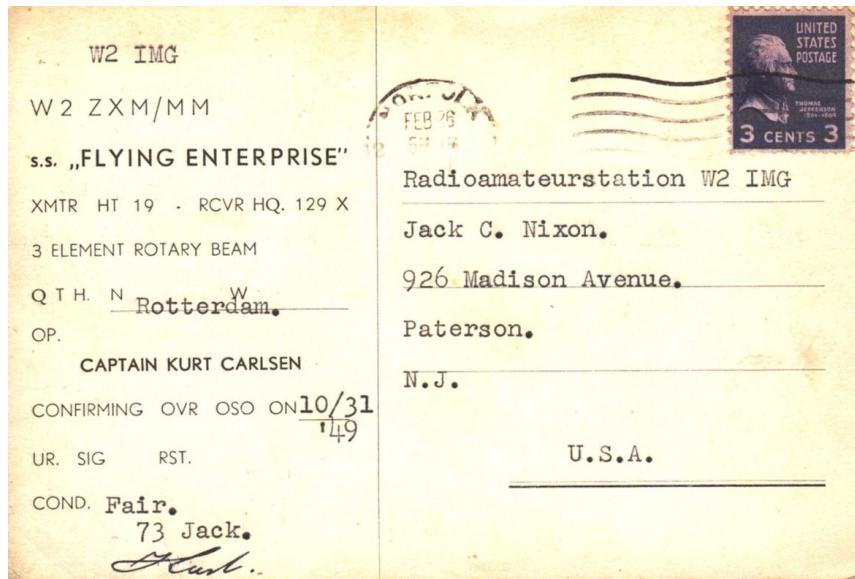


Love him or hate him, Wayne broke new ground in amateur radio, promoting many new modes and types of operating: VHF, UHF and higher bands, FM and repeaters, moonbounce, SSTV, RTTY, the use of computers in the ham shack, and he actively encouraged the art of home construction of ham equipment through his many published articles from contributors. These articles were deliberately written to be fairly simple and inexpensive to build. His monthly editorials, "Never Say Die," were full of humor, controversy, speculation, wisdom, imagination, and not a little vitriol directed at A.R.R.L Headquarters, but with the good intention of changing some of their policies that he felt were resistant to new ideas. The cartoons on both sides of Wayne's card, although unsigned, are clearly the work of Wayne Pierce, K3SUK, long time cartoonist for *73 Magazine*.

There are many stories about courageous sea captains, valiantly remaining at their posts on their sinking ships, often with the sacrifice of their own lives. Some survived their ordeal, living to receive the respect and admiration of their crew and passengers. One of the most famous of these maritime heroes was Captain Kurt Carlsen, W2ZXM, Master of the Flying Enterprise and Flying Enterprise II. Here's a QSL from Capt. Carlsen while onboard the original, ill-fated Flying Enterprise, owned by the Isbrandtsen Company, in 1949:



The Way We Were



The Flying Enterprise was a freighter. On December 26, 1951, one of the worst storms in 50 years hit the North Atlantic, pummeling Carlsen's ship with rough seas off the coast of England. A huge wave cracked the vessel amidships, and after a rescue ship arrived, Carlsen ordered his 10 passengers and crew of 40 to abandon ship. Carlsen radioed that he would remain onboard for as long as the ship remained afloat. But the heavy weather continued, and though Carlsen steeled himself for the worst, he remained onboard the listing vessel for two weeks, keeping the world informed of his condition by radio and scavenging for food and water to keep himself alive. Finally, a sailor on a rescue tug arrived, and provided a tow line. 37 miles from the coast of Plymouth, and the ship sinking, Carlsen and the sailor jumped into the sea, and were rescued by the tug. (3)

When Carlsen arrived at Falmouth, a crowd of well wishers awaited him. Following his return to the United States, he was given a tickertape parade in New York City, followed by invitations from royalty, award ceremonies, and finally, a medal for heroism by an Act of Congress. Although given lucrative offers to write his story, he turned down these offers, stating that what he did was simply a matter of doing his duty as ship's captain. The only honor he gratefully accepted was to receive a new billet as captain of the Flying Enterprise II, several months after the sinking of the Flying Enterprise. He remained at sea for the rest of his life, and when he died in 1989, he was buried at sea, in the same waters where the original Flying Enterprise was lost. (4)

By the way, Capt. Carlsen was a New Jersey guy. He lived in what the *New York Times* article described as a "modest home" in Woodbridge. One source reports that the only contact Carlsen had by radio while alone on the ship was by ham radio, and that in 2006, a book was written about Carlsen's adventure entitled, *Simple Courage, A True Story of Peril on the Sea*. (5)

Here's the "Final Chapter" QSL from the Flying Enterprise II, dated 1957. It depicts the last moments of the original Flying Enterprise, just before it sank in 1951. On the funnel are two human figures, Carlsen and the sailor from the rescue tug about to leap into the chilly waters of the Atlantic.

The Way We Were



UNDER command of Capt. H. K. Carlsen, FLYING ENTERPRISE II carries on in the fine tradition of the first FLYING ENTERPRISE which was lost January 10, 1952 in heavy weather off the Cornish coast of England. FLYING ENTERPRISE II joined the Isbrandtsen fleet on April 5, 1952 and has been in regular fortnightly 'round-world service from the United States ever since.

ISBRANDTSEN CO., Inc.

26 Broadway, New York 4, N. Y.

S/S FLYING ENTERPRISE II

W 2 Z X M / MM

QTH Lat. 48 N
Long. 180 E

CAPTAIN KURT CARLSEN

Confirming our QSO On 5/19/57

UR SIG RST. 5x6

COND. Fair



W7YMR Marshall S. Macy

207 Highland St.

Newcastle, Wyo.

U.S.A.



FLYING ENTERPRISE II

The Way We Were

Have you ever heard of a character in pulp fiction who was a scientist-adventurer by the name of "Doc Savage?" He was a character that appeared in more than 150 novels by a person with the pen name of "Kenneth Robeson." "Kenneth Robeson" was, in reality, Lester Dent of Laplata, Missouri, better known to hams by his call letters as WØCBL. Dent was born in 1904 in Laplata, but the family soon relocated to Wyoming. He attended a one room schoolhouse there, paying his tuition by selling the furs of animals he had caught. He had few friends in that isolated area, and this evidently set his imagination in motion, a quality that would later result in his literary efforts. (6)

While working as a telegrapher for the Associated Press in Oklahoma, Dent was inspired by one of his co-workers having been published in a pulp fiction magazine. He started writing stories during slow periods as he worked the graveyard shift, publishing his first piece in 1929. After writing for several other publications, Dent published his first issue of *Doc Savage Magazine* in 1933, and great success followed. He took technical courses, and obtained his amateur radio and pilot's licenses. He traveled extensively, and became a member of the Explorer's Club. Although the *Doc Savage* series ended in 1949, he continued to write in other venues. His final story was a western entitled "Savage Challenge," which appeared in the *Saturday Evening Post* in 1958, and a novel, *Lady in Peril*, published after his death. Dent suffered a fatal heart attack in February, 1959. (7)

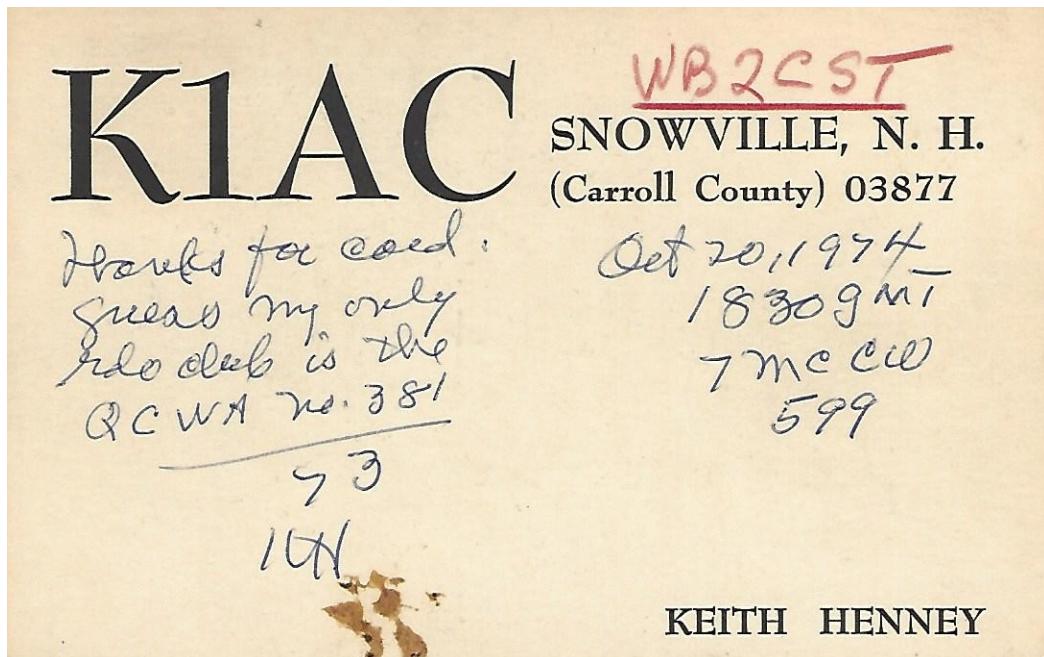
Dent also published under his own name, as shown on this QSL from 1947:



In the world of publishing and writing, another name joins our list of the "famous" in amateur radio. That name is Keith Henney. Henney was born in Ohio in 1896. He earned his A.B. degree from Western Reserve University in 1921, and his M.A. from Harvard in 1925. He built his first receiver in 1912, a crystal detector, and started his writing career as a cub reporter for an "anti-Harding" newspaper in Marion, Ohio. He was first licensed as 8ZD in Ohio, later W1QGU and K2BH. (8)

The Way We Were

In 1974, I worked Henney, and he sent me this QSL from his call then, K1AC:



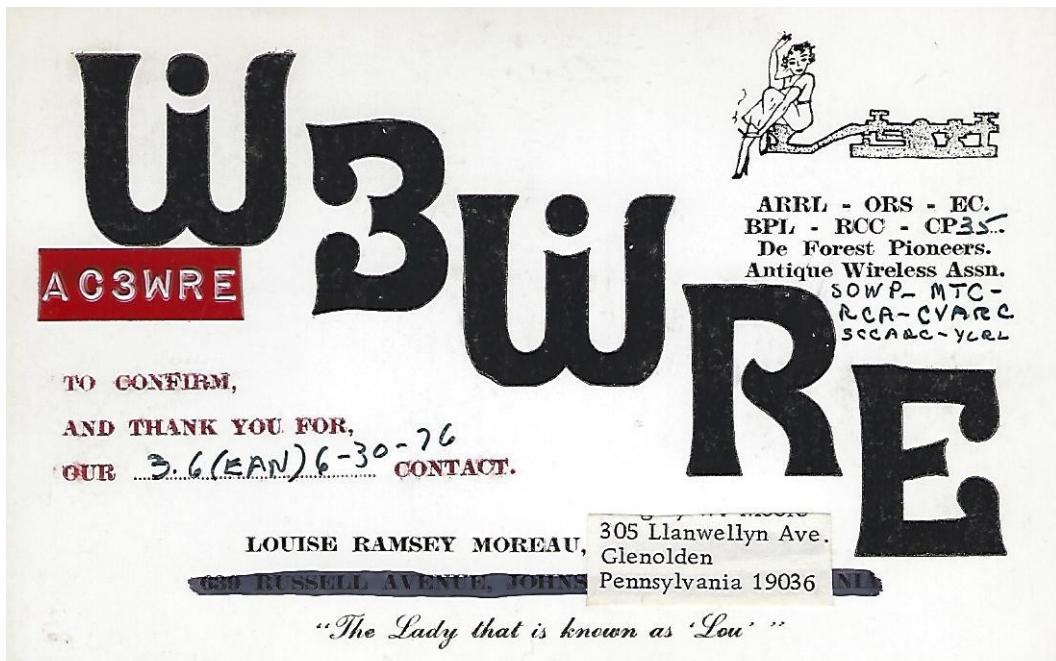
Henney first worked for the Western Electric Company, then spent five years in establishing a "radio laboratory" for the Doubleday & Doran Company, which published the magazine *Radio Broadcast*, as well as books on many subjects. He then turned to publishing his own work. Henney's first book was *Principles of Radio* in 1929. Its final, Sixth Edition, was published in 1962. In 1930, he became Associate Editor of McGraw-Hill's monthly publication, *Electronics*, then Managing Editor in 1934, Editor in Chief in 1935, and Consulting Editor in 1946. In 1947, he became Editor of their publication *Nucleonics* until his retirement from McGraw-Hill in 1961. He edited the *Radio Engineering Handbook* beginning in 1933, until its Fifth and final Edition in 1962. Other publications he produced were *Electron Tubes in Industry*, as well as several books on photography. He was a member of the Harvard Club of New York, and was made a Fellow of the Institute of Radio Engineers. (9) According to the New England Silent Key List, Henney passed away in March, 1991. (10)

Before the days when telegraph key collecting became a major sub-interest within and beyond amateur radio, one person had the reputation of being our country's, and possibly the world's, premier key collector. She was Louise "Lou" Moreau, W3WRE, and probably also the first major key collector to be a "YL." "Lou" made a historical study of telegraph keys and related equipment, and published a number of articles in various publications, but especially in those issued by the Antique Wireless Association. She published a series of articles called *The Story of the Key* in the British journal *Morsum Magnificat*, a publication devoted to telegraph keys and radiotelegraphy. This series was later compiled and reprinted as a book-length work by that journal as part of their "Best of MM" series. (11)

The Way We Were

"Lou" was also credited with clearing up the origin of the term "73," stating that it was first used by landline telegraphers in the 19th Century, and then picked up by early commercial and amateur operators in the early 1900s. I worked "Lou" in 1976, during the US Bicentennial. The "AC3" call refers to special prefixes we US hams were allowed to use that year. Our QSO was on the Eastern Area Net (EAN), while passing traffic.

Here's her QSL:



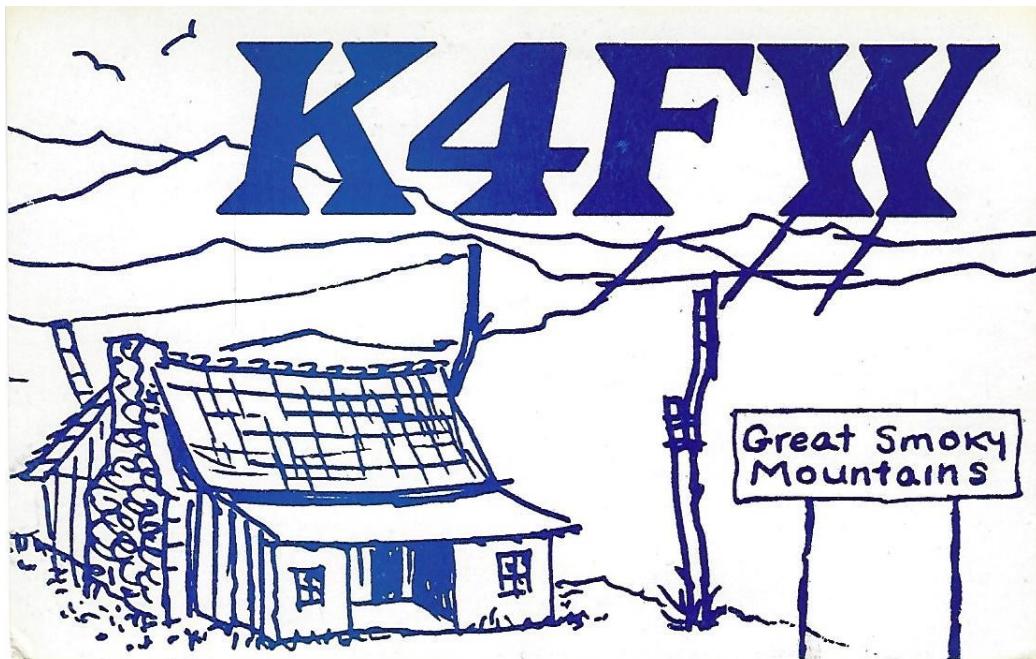
While living in California during the 1960s, "Lou" also held the call WB6BBO, and edited the "YL News and Views" column in *QST*. After her passing, her massive key collection was donated to the Antique Wireless Association Museum in Bloomfield, New York, where it currently resides.

Although we covered a number of well-known ham equipment manufacturers in last month's column, it would be a serious omission not to include the work of Al Kahn, K4FW. Originally licensed as W8DUS, Al was the founder of the famous microphone company, Electro-Voice, in 1920. In later years, Al also was the founder of Ten-Tec in Sevierville, Tennessee, and he was instrumental in the founding of Heathkit. (12)

With so many achievements, you might think he had little time for amateur radio. Actually, Al was a very active amateur, especially on the CW bands. I worked Al first as W8DUS back in the 1960s during the A.R.R.L. Sweepstakes contest, and then again in 1979 as K4FW during one of the F.O.C. (First Class CW Operator's Club) Marathons, a contest among members.

The Way We Were

Here's Al's QSL from that QSO:



ALBERT KAHN — Old Cartertown Road
Gatlinburg, Tennessee 37738
Ex-W8DUS Sevier County

CW
Radio WB2CST confirming our 2X SSB
QSO at 2230GMT on Mar 3 1979
Ur sigs RST 599 on 14 MHz

Antennas: Stacked 6 element beams on 20, 8 elements on 15, 10 elements on 10, 3 elements on 40. Dipoles on 40 and 80

Transceiver: TEN-TEC OMNI

Amplifier Alpha 374

Keyer: TEN-TEC KR50

Tnx for QSL. Pse QSL direct or via Bureau

73

Al

Of course, he was running all Ten-Tec equipment! He was a great operator, and a successful businessman, as well as a great friend of amateurs everywhere.

The Way We Were

Although not a manufacturer of amateur equipment, James (Jim) Ricks, W9TO, was designer of one of the most famous electronic keyers. His well-known "T.O." keyer was designed in the late 1950s, and the design sold to the Hallicrafters Company. The result was the Hallicrafters model HA-1, probably the most successful electronic keyer ever sold before the solid-state era. It was reviewed in the November, 1960 issue of *QST*, and an updated circuit was developed in 1962 using semiconductor rectifiers. The circuit also appeared in the Sixteenth Edition of the *Radio Handbook*, in 1962. (13) Here's Jim's QSL from a QSO I had with him on 80 meter CW in 1972:



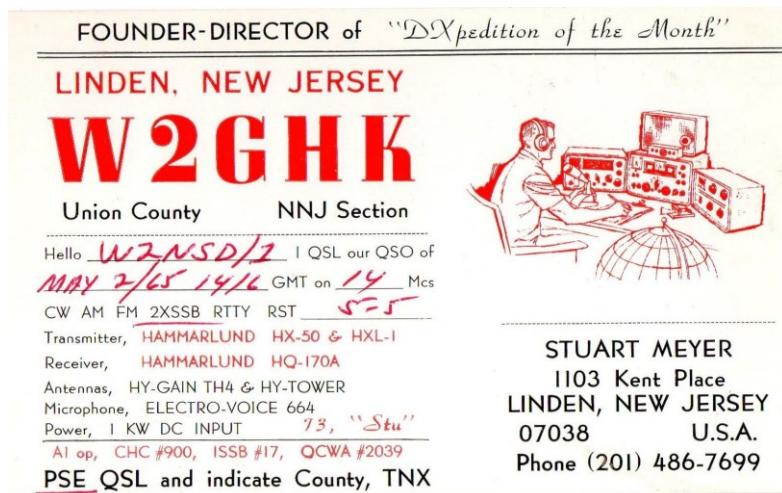
Interestingly, Jim's QSL states that he wasn't using one of his famous keyers when I worked him, but a keyboard. He was one of the first CW operators to use one. He was, however, using all Hallicrafters equipment. He was the founder of the "Chicken Fat Operators" (CFO), an exclusive group of super high speed operators, who typically conversed at speeds above 50 WPM. He was given CFO #1, and commonly known among members as "Big Bird," a nickname that he first acquired in the 1930s. He became a Silent Key on October 20, 2001 at the age of 86. (14)

Among the most famous of DX-Peditioners was Stu Meyer, W2GHK of Linden, New Jersey. Stu was former Chief Engineer and President of Hammarlund Radio, and founder of the Hammarlund-sponsored "DX-Pedition of the Month" program during the 1950s and '60s, which included treks to many "rare" DX entities, and even "rare" US counties for county hunters. (15)



The Way We Were

Here's Stu's QSL from 1965:

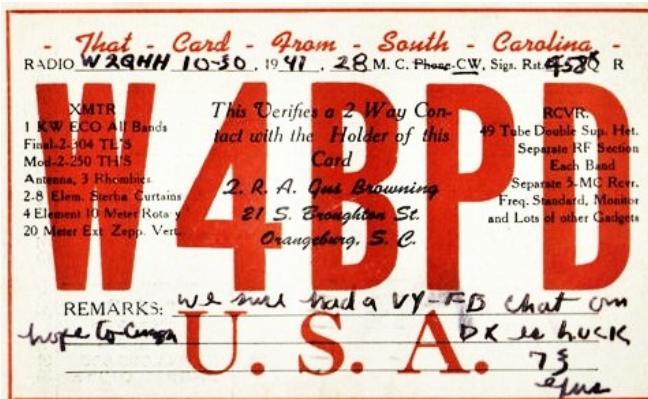


For his contributions to amateur radio and DXing, Stu was named to the *CQ Magazine*'s Hall of Fame by their DX Advisory Committee in 1970. He also served as President and Director of the Quarter Century Wireless Association (Q.C.W.A.). (16) Many of the QSLs from his expeditions are offered for sale on auction sites as collectibles. I worked one of them, HKØAI, on San Andres Island.

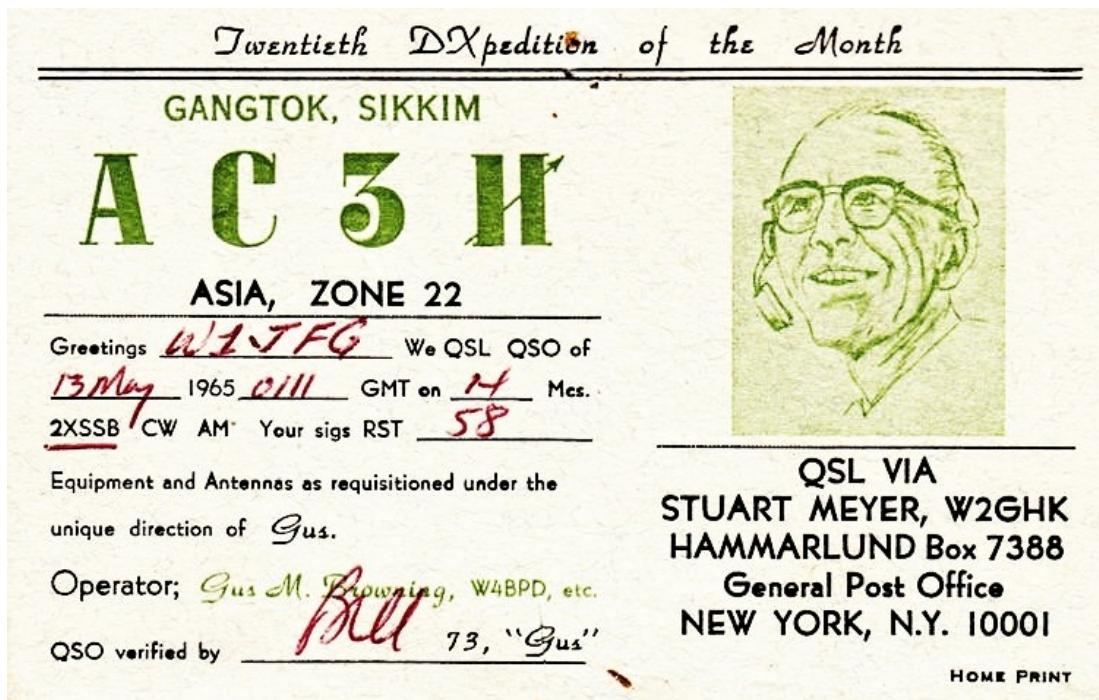
The name "Mr. DX" might well be applied to Gus Browning, W4BPD, who was the all-time king of DX-Peditions for activating many, many rare DX entities during the 1950s, '60s, and early '70s. Gus was noted for his superb operating technique, often handling monster "pileups" with calm, grace, and a high level of skill. He was legendary in this respect, and his successes have never, in my opinion, been equaled.

He was the first to be named to the DX Hall of Fame, in 1967. He was famous, not only for his many DX-Peditions and superior operating, but for never being without a supply of *Cola-Cola*™, no matter where he roamed across the globe. All told, Gus operated from more than 100 DX entities, often from tiny islands, some not even on the map! (17) Some of these operations were later questioned by the A.R.R.L., but most were accepted.

Here's an early QSL from Gus from 1947, and a typical card from one of Gus' exotic DX-Peditions, AC3H in Sikkim, in 1965, with an image of Gus at upper right. Sikkim is now a deleted entity, since it has become one of the States of India.



The Way We Were



A personal recollection about Gus: Sometime back in the 1960s, before I had a decent antenna system, I was listening to one of Gus' operations and the pileup that ensued. He was working by call prefixes, and said, "Now I want only WA2's."

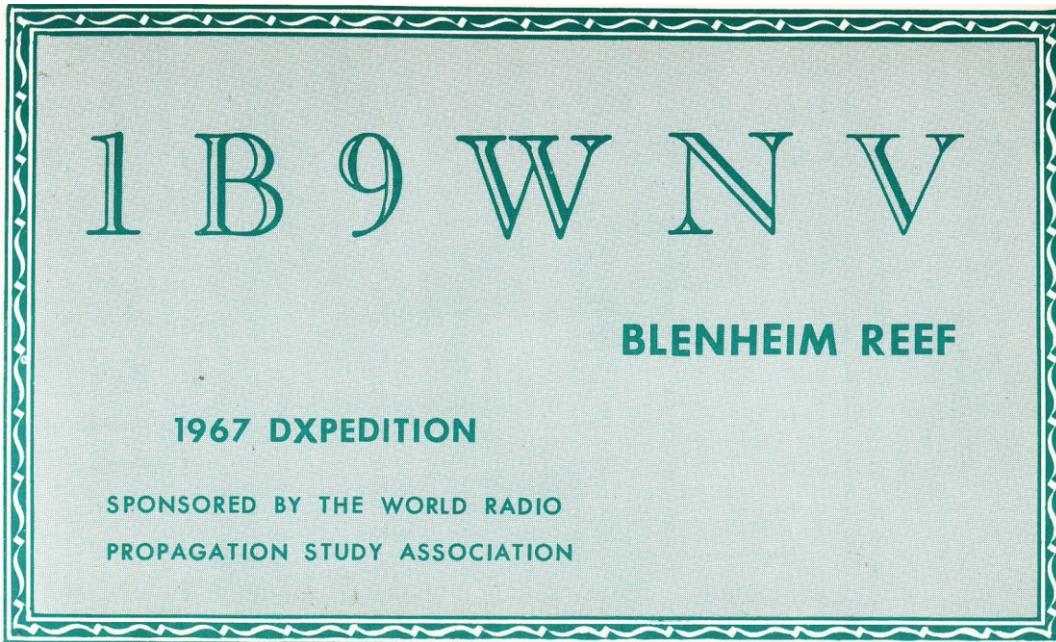
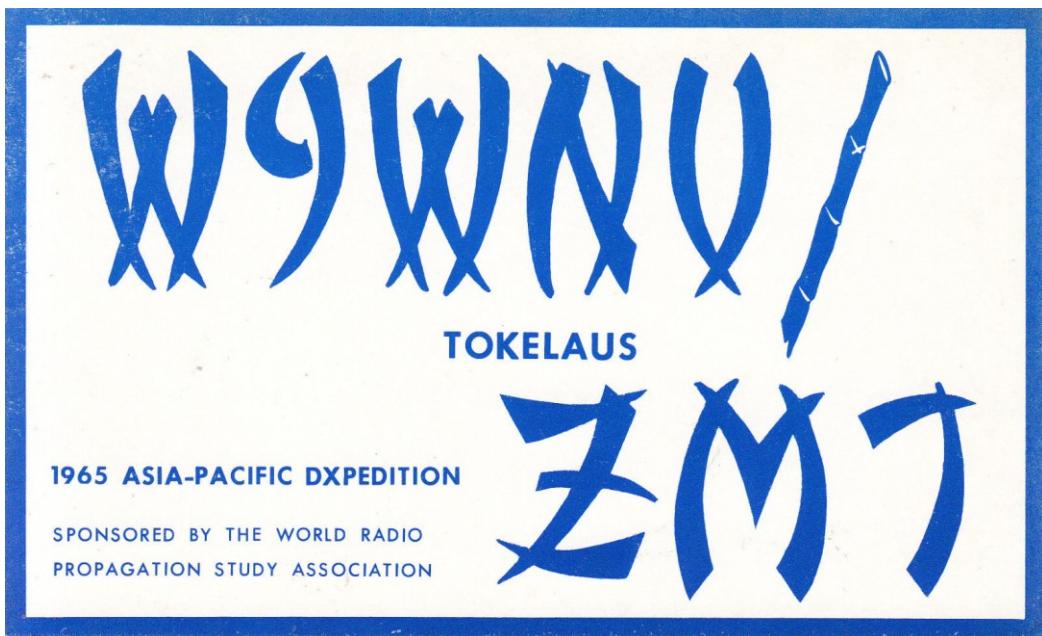
Well, every 2-land station called him, and when the tumult quieted down, Gus came back, saying, "No, no, boys. Ah said only Willie Able Two's, not Willie Two's or King Two's... only Willie Able Two's. So let's try again," he drawled, and as the pandemonium was reduced to a dull roar, he worked them at the rate of four or five a minute. The man had class.

Gus published a series of articles in 30 parts (actually 31) in *73 Magazine*, describing his adventures on his DX-Peditions. The series began with the May, 1965 issue, and ended with the January, 1968 issue. (18) They make fascinating reading to this day. He also published the *DXers Magazine*, and ran a QSL printing business from his home. (See: *The Resonator*, April 13, 2018, p. 27).

Another of the most famous DX-Peditioners was Dr. Don Miller, W9WNV. Like Gus Browning, Don also provided many rare DX entities on numerous overseas jaunts. Unfortunately, a number of these were later challenged by the A.R.R.L. and disallowed, charging that in these cases, Don actually wasn't operating from where he claimed, or that the operation from these places were either not approved or sufficiently documented by authorities. Miller later admitted to some of these charges. (19)

Here are a couple of Miller's famous expedition QSLs, from "Tokelaus" and "Blenheim Reef", both disallowed by the A.R.R.L. for DXCC credit:

The Way We Were



As serious as these bogus operations were, Miller's life would later take an even worse turn. In 1980, he was convicted of hiring a hit-man to kill his ex-wife, and sentenced to 25 years to life in prison. After his release, a YouTube video interview was conducted by Martti Laine, OH2BH, which reportedly shows Miller as "contrite" and "remorseful," but with "still a hint of that young mischief-maker and a twinkle in his 80 year old eyes as he teases of putting another rare one on the air one last time." Miller has since become re-licensed as AE6IY. (20) I have never heard him on the air with that call. All in all, Miller's fall from grace is a profound tragedy, both for Miller himself, and for the amateur radio community at large.

The Way We Were

Don Miller isn't the only amateur to run questionable DX-Peditions. A more recent incarnation of the Miller syndrome is Romeo Stepanenko, AKA Roman Vega, who has operated under many calls, including UB5RR, 3W3RR, 1SØRR, XYØRR, and his most famous (infamous) call, P5RS7, allegedly from North Korea during 1992-93. The A.R.R.L. did not accept Romeo's documentation for this operation, and he was subsequently disqualified from further participation in the DXCC program. (21) Here's the now very rare QSL from Romeo's supposed "North Korea" operation:



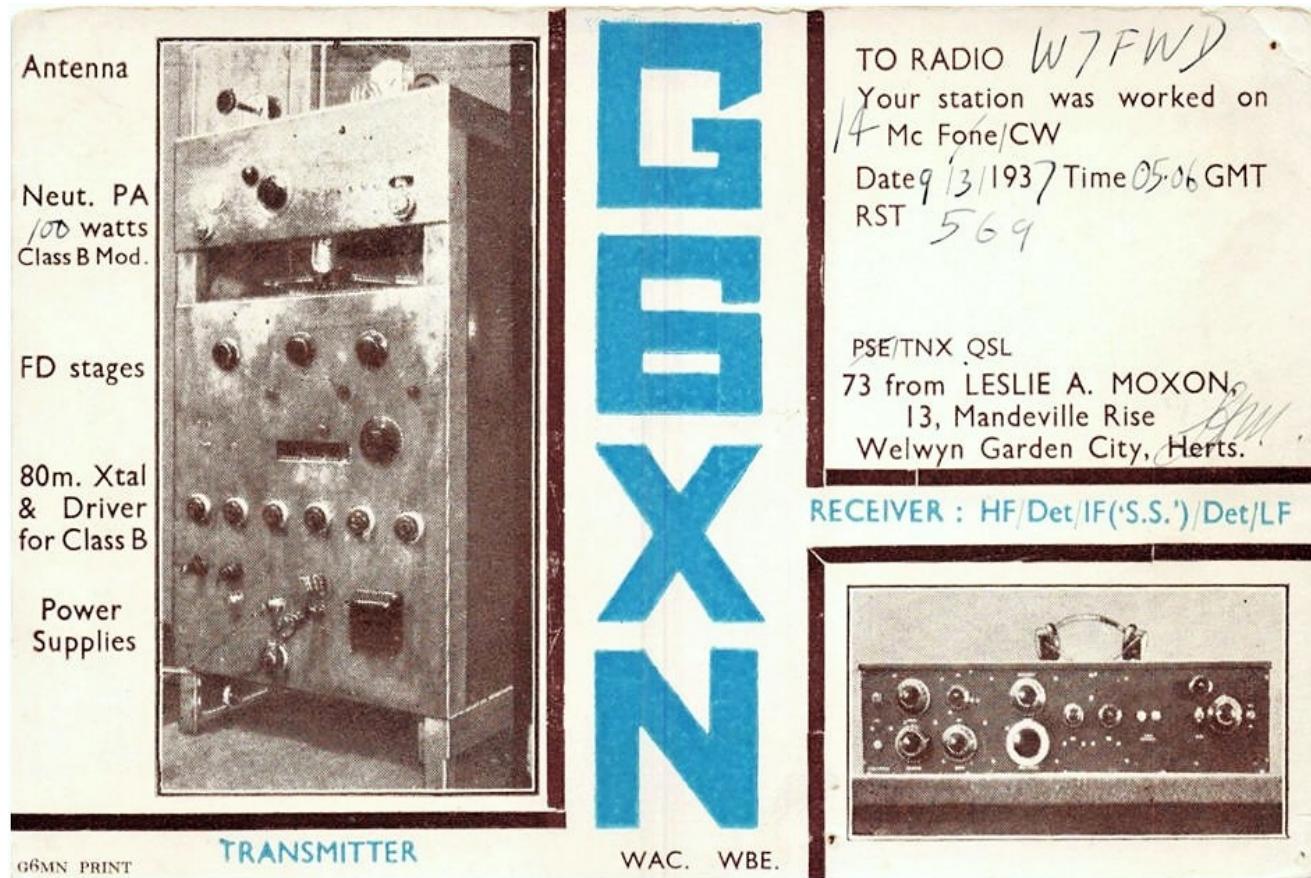
But Romeo's troubles were just beginning. In 2003, he was convicted of cyber crime involving alleged credit card fraud in Cyprus. One year later, he was extradited to the United States on federal charges in California. In 2007, further charges were filed against him in New York. Two years later, he pleaded guilty to those charges, but then tried to withdraw his guilty plea in 2011. In 2012, despite several motions, the court denied his withdrawal, letting the charges stand. He was sentenced to 18 years. He has remained in custody since 2003. (22)

The stories of Don Miller and Romeo Stepanenko are certainly not typical of DX-Peditioners, but rare, unfortunate exceptions. The vast majority of these operations are completely legitimate, very expensive to undertake, sometimes quite dangerous to their participants, and they employ a high level of operating courtesy and skill. Human nature being what it is, though, there is always the possibility of dishonesty, as in any other human undertaking.

One more famous amateur in the field of antennas was Les Moxon, G6XN. His simple antenna designs have become quite popular, especially for those on a limited budget, and willing to do a little work in building them. Moxon had written many articles in British amateur publications, but his first article in *QST* appeared in July, 1952, with the title, "Two Element Driven Arrays." He published several other articles during the 1970s and '80s, and is perhaps best known for his monumental work, *HF Antennas for all Locations*, published in 1982, which has become a classic in its field. Subsequently, other authors have developed their own versions of Les' antenna designs. The final years of his life were marked by inactivity in amateur radio, while he developed an interest in theology. He passed away in 2004. (23)

The Way We Were

Here's an early QSL from Les, dated 1937:



A name that may not be well known in the United States, but is quite well known in Europe, is that of Constant Martin, F9KN. Martin was a French engineer and early radio pioneer, best known for his invention of the Clavioline, a type of electronic organ, and precursor of the synthesizer. Beginning in 1932, he became interested in electronic music, and developed an organ using harmonium reeds. In 1943, he built an electronic organ with harmonic analyzers and independent oscillators, and when the city of Versailles was liberated by the Allies during World War II, Martin built a system of electronic bells that rang out from the city hall. His Clavioline was first sold commercially in 1947, and it soon became the most popular monophonic instrument of its kind in Europe. (24)

In the 1950s, he developed improved versions of electronic bells, and in the early '60s, began using transistors in his organ circuits, making them nearly equivalent to the sound produced by a pipe organ. By this time, his Clavioline was being used by popular recording artists, including Del Shannon, The Tornados and The Beatles. Later, Martin suffered stiff competition from other European manufacturers, who had developed polyphonic synthesizers, resulting in a dwindling market for his Clavioline. (25)

The Way We Were

Here's a QSL from F9KN, dated 1949, showing Martin at his invention:



The Tornados hit record, "Telstar," which used Martin's Clavioline, honored the first communications satellite of that name, launched by NASA on July 10, 1962. (26) In a matter of days, I would receive my first amateur radio license in the mail. JFK was in the White House, and to my fourteen year old imagination, "everything seemed possible." The record got heavy airplay on radio stations, and almost immediately, it zoomed up to number 1 on the British and USA charts.

To hear what the Clavioline sounded like on this record, follow this link:

<https://www.youtube.com/watch?v=ryrEPzsx1gQ>

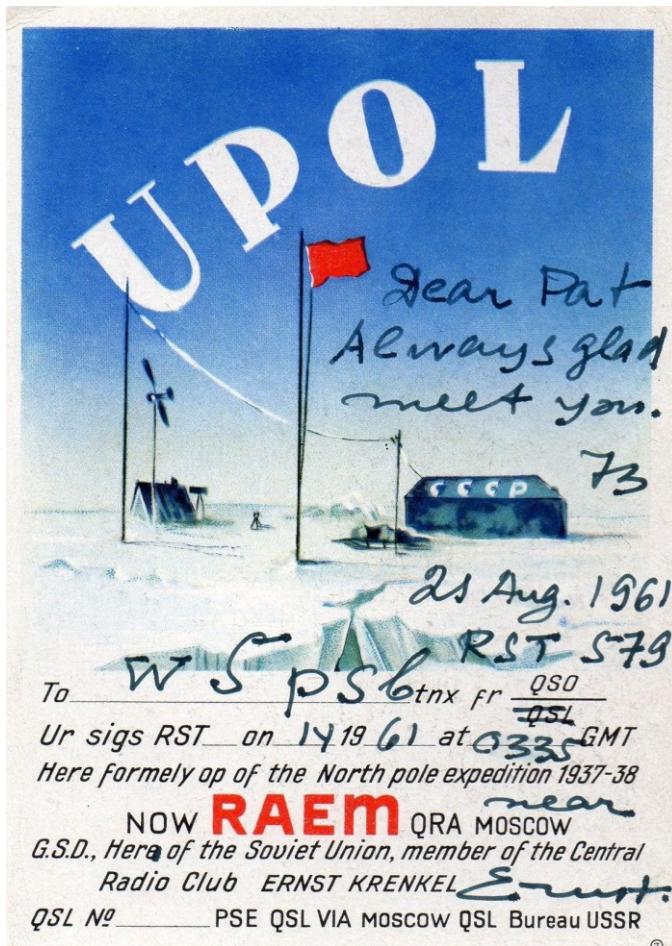
Every nation has its heroes, and the former Soviet Union had two national heroes in radio. The first was Alexander Stepanovich Popov, who experimented with wireless as early as 1896, and who developed an improved version of the coherer, a simple detector discovered by Sir Oliver Lodge that used loose iron filings in a closed glass tube to produce a crude semiconductor effect. Unfortunately, Marconi applied for a patent for his work, but Popov didn't. Nevertheless, Popov's early work may actually predate Marconi's, and he remains a hero of the Russian Federation to this day. (27)

The Way We Were

The second was Ernst Krenkl, named a Hero of the Soviet Union in 1938. He was radio operator on several ships making expeditions to the Arctic in the 1920s, and later, he served as Chief Radio Officer on the icebreaker S.S. Chelyuskin in the 1930s. While en route to Wrangel Island, the ship became stuck in the ice near Cape Uellen, resulting in the loss of the vessel. Krenkl retrieved the ship's radio equipment, and kept it in communication with authorities in order to coordinate rescue efforts. Krenkl was also an avid amateur operator (U3AA and later, UA3AA), and after the loss of the Chelyuskin, he was given the ship's callsign for his amateur work, which was RAEM. He maintained that call until his death in 1971. (28)

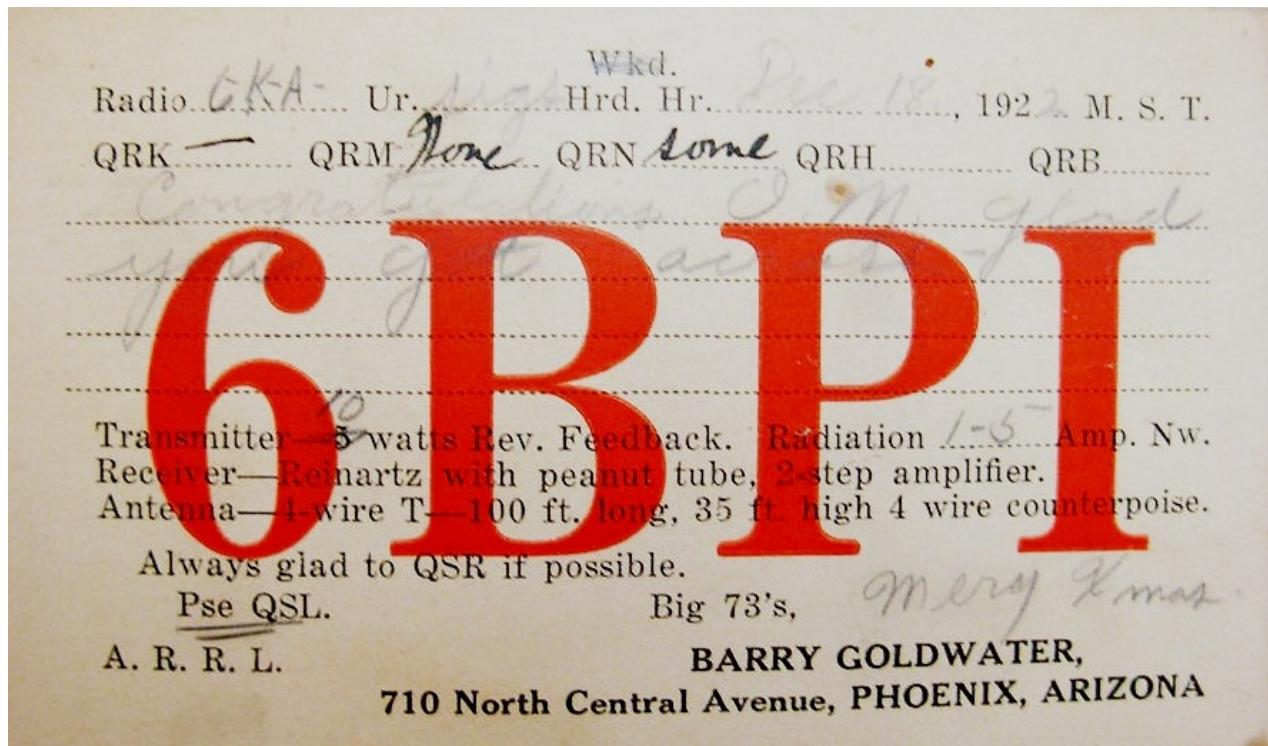
The Russian National Academy of Researches and Discoveries established the E.T. Krenkl Medal, awarded to prominent amateur radio operators and organizations. In May, 2018, the Medal was awarded to *QST Magazine* for its "outstanding global contributions to amateur radio." (29) Periodically, Special Event stations are activated by Russian hams to honor the memory of Krenkl and his contributions to amateur and maritime radio history.

Here's a QSL from Krenkl, using his RAEM call, dated 1961:



In the field of politics and national governance, there have been a number of licensed radio amateurs. The most famous in the United States was former U.S. Senator and presidential hopeful Barry S. Goldwater, who held the calls K7UGA and K3UIG. Barry was first licensed in 1921 as 6BPI in his home state of Arizona, and after a period of inactivity, he became re-licensed in the early 1960s.

The Way We Were



The Way We Were

Some others include former President of Argentina Carlos Menem, (LU1SM), King Hussain of Jordan (JY1), and Queen Noor (JY2), former Prime Minister of India Rajiv Gandhi (VU2RG), and King Juan Carlos of Spain (EAØJC). Among past royalty, it is believed that King Farouk of Egypt once operated with the call SU1A, but this has not been verified. Another, well-documented member of royalty was Archduke Anton Hapsburg of Austria, OE3AH. Here's his QSL from 1938, offering a rare view of the Archduke at his rig:



OE3AH

For those of us growing up in the 1950s and '60s, there was one radio voice that entertained us by seeing the humorous side of life, while also inspiring us to think more deeply about life in general. That voice belonged to Jean Shepherd, whose radio show on WOR in New York ran from 1955 to 1977, and who also recorded shows for syndication on stations in other major cities. I became a Shepherd fan in the autumn of 1961, just after the start of 9th grade at Thomas Jefferson Middle School.

In addition to being a popular radio storyteller, Shepherd was an actor, novelist, film-maker, columnist, humorist, artist, social critic, and host of the TV show, "Shepherd's Pie," carried on New Jersey Public Television. Some of his early writings and drawings appeared in *The Village Voice* and *Mad Magazine* in the 1950s. In 1964, he published *The America of George Ade*, an anthology of some of Ade's best stories, originally published in the early 1900s as *Fables in Slang*. He then wrote a number of humorous stories for *Playboy* magazine during the 1960s, which were later reprinted as four separate novels. He was a regular columnist for *Car and Driver* magazine, and wrote articles for *Fish & Stream* and the short-lived humor magazine *Grump*, published by his longtime friend Roger Price. He even wrote humor articles for *CQ Magazine* and *73*.

The Way We Were

Shortly after arriving in New York in 1955, Shepherd created one of the greatest literary hoaxes of all time. Skeptical of the *New York Times* Best Sellers List, he asked his listeners to go to bookstores and demand a book entitled, *I, Libertine*, by "Frederick R. Ewing," a book that did not exist. His listeners responded, and within days, the book appeared on the Best Sellers List, despite its nonexistence! Shepherd had proved his point, but the furor that resulted in the publishing and bookselling industries forced its publication. Shepherd and friend Ted Sturgeon (of Sci-Fi fame) collaborated on the book, and it was published in paperback by Ballantine. In the 1970s, he produced a number of movies, the most famous of which is the Holiday standard, "*A Christmas Story*."

Shepherd's radio shows ran the gamut of stories about his days in the Army Signal Corps., his early days in broadcasting, friends and foes from his youth, and amateur radio. His call was K2ORS. First licensed as W9QWN, he also held the calls W4QWN, W8QWN, and W3STE. His first address as K2ORS, incidentally, was at an apartment complex on Reichelt Road in New Milford, New Jersey, before he moved to Manhattan.

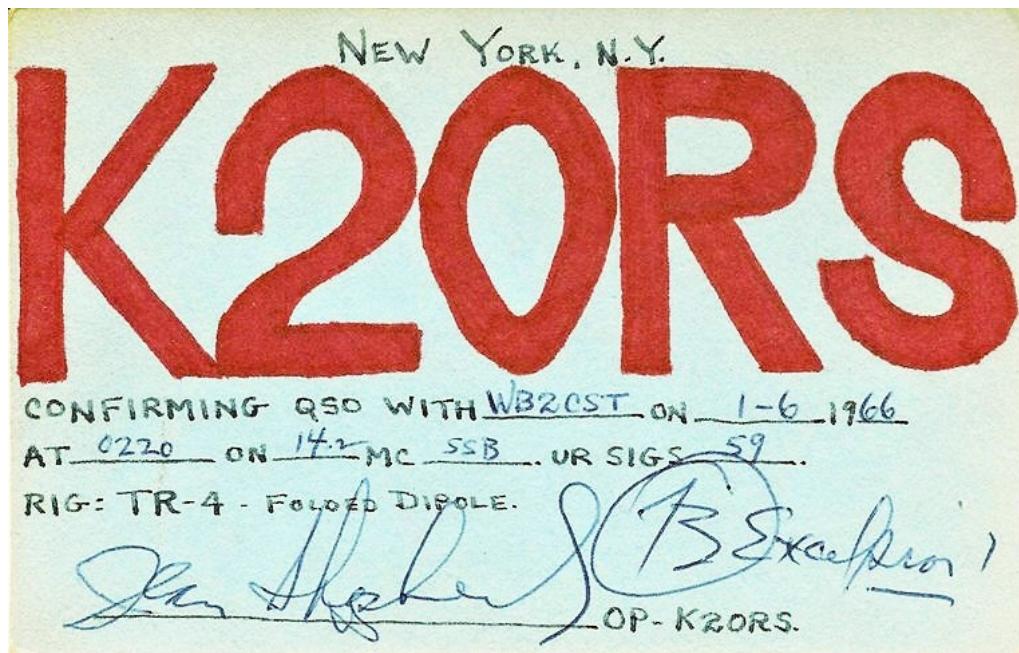
There are many online resources about Shepherd and his work, and two books: a biography published in 2005, and an anthology of his Army stories published in 2013. (30), (31)

Perhaps the most comprehensive online source about Shepherd's life and work is the Flick Lives site, which can be found here...

<http://flicklives.com>

A large amount of the biographical information on that site was provided by "Shepherd Scholar" and longtime friend of mine, Steve Glazer, W2SG, who was the person most responsible for introducing me to this uniquely talented artist and author back in our days at "TJ" in 1961. Steve is currently working on a documentary film about Shepherd which is expected to be released next year.

Here is a hand-made, autographed QSL from K2ORS for a QSO I had with him in 1966 on 20 meter SSB. Later, I also worked him on 2 meter FM.



The Way We Were

There's quite a story about how I got that QSL. In 1967, I was an announcer and newsman at WFDU radio, at Fairleigh Dickinson University's Teaneck campus. Knowing that Shepherd was due to perform at our school, I prepared the card, hoping to get not only an autograph, but a QSL for an actual QSO I had with him. After his performance, he visited our radio studio, and I interviewed him. He was most gracious, and signed the card, adding his trademark "Excelsior!" to it.

Then, in typical Shepherd fashion, he turned to me and said, "**Kid, you've got a real collector's item here. This is the only K2ORS QSL card in existence.**"

Needless to say, it is not for sale at any price. Subsequently, the call has been re-issued as a Vanity call to another Shepherd fan, Warren Ziegler, who lives in Massachusetts. (32)

If anybody else ever gets that card, it will probably be him.

Until next month...*Excelsior!*

73,

Fred W2AAB



Jean Shepherd K2ORS circa 1968

The Way We Were

NOTES:

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- 3) Rabinovitch, Abraham, "The Captain Who Stayed Aboard," *New York Times*, April 5, 2012, at:
<https://www.nytimes.com/2012/04/06/opinion/the-captain-who-stayed-aboard.html>
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- 5) "Captain Carlsen Book Published," posting by K6CU on qrz.com forums, at:
<https://forums.qrz.com/index.php?threads/captain-carlsen-book-published.100083/>
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- 7) Ibid.
- 8) "Keith Henney – Biography," Engineering and Technology History Wiki, at: https://ethw.org/Keith_Henney
- 9) Ibid.
- 10) "New England Silent Key List," at: <http://www.kb1xi.com/ham/SK1.htm>
- 11) Moreau, Louise Ramsey, W3WRE, The Story of the Key: American Telegraph Instrument Makers 1837-1900, Morsum Magnificat, The Best of MM, Vol. 1, available at:
<http://www.n7cfo.com/tgph/Dwnlds/mm/MMs/TSOTK.pdf>
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- 13) Posting by W4AWM, 8/13/04, on the "AM Radio" forum archive, at:
<https://amradio.mailman.qth.narkive.com/pz4Rtqsv/re-gb-original-t-o-keyer-article-when>
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- 16) Ibid.
- 17) Hamilton, Les, GM3ITN, "The Original DXpeditioners," at:
<http://www.angelfire.com/falcon/gm3itn/indexdup.html>
- 18) "73 Magazine Information," by KB9MWR, at: <https://www.qsl.net/kb9mwr/files/ham/73.html>
- 19) Steve, VE7SL, "The Don Miller Enigma," 20 March, 2017, at: <https://www.amateurradio.com/the-don-miller-enigma/>
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<http://hamgallery.com/gallery/R/Romeo/>
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- 32) FCC License Search: K2ORS, at: <https://wireless2.fcc.gov/UIsApp/UIsSearch/license.jsp?licKey=2466570>

The Success Of The Garden School Is The Topic Of The FLARC April 19th Speaker Series

On April 19th, John Hale KD2LPM and Gerry Pilates N2WGF provided a comprehensive overview to the successful student ham station K2GSG in Queens. A holiday weekend crowd of thirty moved into the Card Room for a lesson as to "do's" and "don'ts" in working to attract school children. Key is finding committed teachers who understand what our hobby is, making sure school administrators are committed to the cause and establishing a funding source to provide the proper curricula going forward.

We won't see the last of our speakers -- both John and Gerry joined FLARC and we trust that we can use our mutual expertise to grow our experience in this area. Thanks to both!!



L to R: N2WGF, WX2R, W2DLT and KD2LPM at the conclusion



Ria N2RJ asks a question during the informative session.

Theoretics Demystified, Continued

All in all, the unpredictable-ness of radio propagation makes ham radio a very interesting and fun hobby, not to mention all of the new friends you will have on the air and in person.

A last thing to mention to help you get a handle on HF propagation is to remember that radio waves behave much like light especially the higher the frequency. The only difference between radio waves and light or X or cosmic rays is the frequency and wave length. The higher the frequency or cycles per second, the shorter the wave length (more cycles to fit in that one second of time!)

Fred, W2ABE, 73!

Have You Updated Your Listing In QRZ?

Anyone who operates should take advantage of the free listing at QRZ.com to tell the world a little bit about you.

And while you're at it, it's a good chance to tell everyone that you're a proud member of FLARC and (affectionately) what it means to you.

Wear your red FLARC shirt in the picture!!

It is also a very handy and easy place to keep your log (DX or regular), which can then easily be linked to LotW.

Details for setup are at <http://www.qrz.com>



Great Falls A Success On 29 April

Great Falls IV turned out to be a fun team effort on a cool to cold Monday morning on April 29th. Once again the kids came in droves, they saw amateur radio in action, and Captain Larry held them captivated. Also of benefit were some local contacts for community outreach, an offer of an equipment donation, and a new member -- welcome Erick!

Downside was that the band conditions could have been better although two meters was open. A great highlight QSO on the latter with Bob HB9ASQ in Berne trying to reach Dave N2AAM on HF.

A FLARC TNX to all who helped make it possible -- Randy WU2S, Karl W2KBF, Van W2DLT, Ed WX2R, Ron KC2TBD, Dave N2AAM, Thom W2NZ, Larry WA2ALY, John KD2JLH, and Norm. Also to our rovers Skip KD2BRV and Gene WO2W.



Dave N2AAM mans the 2m station



Ed WX2R at the publicity table

Capital Equipment Fund TOPS \$3,000!

Treasurer Al WA2OWL reports that as of April 26th the capital equipment fund totaled **\$3,131** from 44 members.

The average gift so far is **\$71.16**.

Any gift, large or small, matters to upgrade FLARC and make it state of the art.

Here are the rewards from your gifts.
Thank you!!!



Bob N2SU at Position 4 with the new Flex in operation



Brad KM2C tests the new Flex at position 1.

The 2019 ARRL NNJ 5 Watt Challenge

With the largest turnout to date, many club members turned out on April 14th for this Fair Lawn ARES operating event using low power on the HF, VHF and UHF bands.

Participants included Randy WU2S, Karl W2KBF, Thom W2NZ, Bob KD2BKD, Brian KD2KLN, Fred W2AAB, Dave KD2MOB, Bennett KO2OK, Steve WI2W and Ed WX2R.



L to R: NP4H, WU2S, W2NZ and W2AAB



This was the first time we used our new ARES call KB2FLA in such an event. How did we do?

According to Karl W2KBF, we did a total of 35 QSO's for 45 points....mostly on 2 meter FM.

Just in --

From: John Wyatt [<mailto:w2vty@yahoo.com>]
Sent: Saturday, May 04, 2019 10:01 AM
Subject: Re: Corrected: KB2FLA Log,
5-Watt Challenge

Congratulations on placing in the top 5 scores in this year's 5 Watt challenge, thanks for participating, see you next year! 73

Contest Kudos to W2AAB

Mon Dieu ! Quelle surprise !

Fred W2AAB found that he did pretty well in the **2018 CQ WPX Contests.**

CW: Single-OP, Single Band, 40 meters,
Low Power, Wire antenna:

259,205 points..... **2nd place USA 2nd call area,**
#6 United States, #7 in North America

=====

SSB: Single=Op, Single Band, 40 meters,
Low Power, Wire antenna:

32,130 points..... **1st place, USA 2nd call area,**
#3 United States,
#3 in North America,
#16 World.

Cool beans Fred!! Congrats!!



World Wide WPX Contest

#1 United States 2nd Call Area
Tribander/Single-Element

#16 World
#3 North America
#3 United States

A Total score of 32,130 points was computed on the basis of the number of stations worked and call sign prefixes contacted. In witness of this achievement, we hereby affix our signatures on this day.

Terry Zirng N7TZ
CQ WPX Contest Director

Ed J. Hoban W2VU
Editor, CQ



World Wide WPX Contest

#2 United States 2nd Call Area
Single Op Low Power 40 Meters

#7 North America
#6 United States

A Total score of 259,205 points was computed on the basis of the number of stations worked and call sign prefixes contacted. In witness of this achievement, we hereby affix our signatures on this day.

Terry Zirng N7TZ
CQ WPX Contest Director

Ed J. Hoban W2VU
Editor, CQ



A Look Back

Stan Sanders KC2K is our featured member this month. As many of you know, Stan is a past FLARC president and here is an undated photo of Stan with club members back when our call sign was WB2RLO. The clubhouse in the background was at the Old Library Theatre on River Road in Fair Lawn.

From left to right:

Unidentified, Robert Gigliuto (N2WT/then WA2AJN), Glenn Sanders WB2HUS, Frank Leonard W2NPT (club founder and past president) , Unidentified, Stan Sanders KC2K/then W2TIW, Unidentified, Jerry Klein WA2QZF, Standford (Jim) Solmes WA2MEL (ex FLARC president), and Unidentified.

Portable Day Is Saturday May 11th

Members of the Fair Lawn and Bergen Amateur Radio Clubs will conduct a training exercise in the use of alternative sources of electrical power as part of its bi-annual joint exercise between the two clubs.

"Portable Day" will be held on Saturday, May 11th from 10 AM until 4 PM . The venue will be Memorial Park, Avenue of Heroes/Berdan Avenue in Fair Lawn. The event is free and is open to all area amateurs regardless of club affiliation.

Using alternative electrical power sources such as batteries, solar, and generator power, the event helps to showcase the science and skill of Amateur Radio. This event is open to the public and all are encouraged to attend. Portable Day demonstrates ham radio's ability to work reliably under any conditions from almost any location and create an independent communications network. Ham operators train and prepare to support emergency communications by providing radio links when other communications channels aren't working.

A new addition to the day's activities is the introduction of a radio fox hunt at 11AM around the grounds of Memorial Park and adjacent Memorial Middle School.



Congratulations To Bob KD2BKD and to Fair Lawn ARES In The 5 Watt Challenge

The winner of this year's 5 Watt Challenge was our own Bob KD2BKD with his spiffy Rover operation (see elsewhere in The Resonator). The event is run by the ARRL NNJ section.

Second place went to newly formed Fair Lawn ARES headed up by David KD2MOB and our team. Not bad for having just arrived on the scene.



Welcome New Members!



Secretary Randy W2US (c) welcomes Frank WA2VF (L) and Todd AC2ZA (R) to FLARC at Garretson Farm on 4 May



A panorama of Great Falls National Historical Park during the FLARC Earth Day Special Event Station--April 29, 2019--TNX Thom W2NZ

Ham Lite By Brian KD2KLN



That DX Contest was amazing! I never left my chair!

More Pix From The Great Falls Event



Part of the FLARC team on 29 April



Talk about a crowd for ham radio!

FLARC Business Meeting Minutes

3 May 2019

Vice President Van W2DLT called the meeting to order at 7:31 p.m.

The members rose and recited the Pledge of Allegiance.

Secretary Randy WU2S called the roll of officers and trustees and all except President Brad KM2C and Treasurer Al WA2OWL were present. The meeting had a quorum to conduct club business.

Vice President Van W2DLT asked if there were any visitors or new members present. There were none.

Secretary Randy WU2S announced that the minutes from the April meeting were sent to all members of record and published in the club's newsletter, The Resonator, which is on the club's website at <http://newsletters.FairLawnARC.org>. He asked the members present if there were any corrections or amendments needed. There were none so John W2JLH moved to accept the minutes as published and Skip KD2BRV seconded the motion. The motion passed by acclamation.

Secretary Randy WU2S read this month's Treasurer's Report. He remarked that this month's expenses included refreshments for World Amateur Radio Day and four new monitors for the two Flex radios. He noted that the equipment fund has \$394 which we will use to purchase new laptop computers. Don N2PRT moved to accept the report as read and Judith KC2LTM seconded the motion. The motion passed by acclamation.

Vice President Van W2DLT asked for a report on our YouTube channel. Thom W2NZ was not presented but he emailed a report of recent activity. In the last 28 days the FLARC YouTube channel added 108 new subscribers, bringing our total to 244. The total views for the channel were 13,800, with 13,000+ views of Dr. Taylor's FT8/FT4 presentation alone. Thom asks all FLARC members to continue to share our Channel's videos, by posting any viewed FLARC video on their favorite social media site. Vice President Van W2DLT remarked that Thom has invested a lot of his money in high-quality equipment and software and a huge amount of his time and effort in producing these videos for FLARC. Van said that we should all be grateful for Thom's wonderful contribution to FLARC.

May 2019 Business Meeting

Jim W2JC reported that the FLARC website has an updated events calendar. Jim reported as our QSL Manager that on World Amateur Radio Day we completed 51 contacts to 21 countries. During the Earth Day event at Paterson Great Falls we made 52 HF contacts and 5 VHF contacts to 10 countries. Jim noted that in our quest for a DX Century Club certificate (DXCC) we have 62 confirmed countries. Our Logbook of the World (LotW) total includes 8638 contacts so far.

Vice President Van W2DLT said that the Paterson Great Falls event was a big success. We set up two canopies and had about 250 school children visit. Larry WA2ALY was once again a very popular stop for the children who were eager to learn Morse code.

Vice President Van W2DLT reminded members that our next event will be at Garretson Forge in Fair Lawn on Saturday May 4 where we will operate a special event station using the call sign W2G.

Vice President Van W2DLT announced that our next guest speaker would be Bud AA3B who will tell us about his propagation predictions and contesting at the Senior Center on Friday May 10. Van noted that the presentation is a week earlier than usual because the Dayton Hamvention is the following weekend. Van asked FLARC members to consider attending Hamvention for all the great lectures and huge variety of gear they can see. Secretary Randy WU2S said that he and the AREDN team will be in booth 1001 again this year showing the latest in mesh networking. He hopes to see many FLARC members there.

Ed WX2R reported for the Publicity Committee. He announced that the guest speaker schedule includes:

May 10 – Bud Trench AA3B on Using Propagation Tools for Contesting and DXing.

June 14 – Our guest speaker will be Ron Bosco WB2GAI, a well-known CW operator, who will speak on his on-air activities in Crete.

July 18 - TBD

Continued on next page.

May 2019 Business Meeting

August 16 – Vintage Night at the FLARC clubhouse. Members will discuss and demonstrate classic rigs from the past.

September 20 – Tim Duffy K3LR will talk to us about his “superstation” in Pennsylvania. Tim is a well-known radiosport contesteer, the founder and chairman of Contest University (CTU) and the Chief Operating Officer of DX Engineering which sells a wide range of amateur radio equipment and accessories.

October 16 – Special Surprise guest speaker.

November 15 – TBD

December 20 – ARRL official.

Ed WX2R reminded members that the Fair Lawn Street Fair in Radburn is on Sunday June 9. We will set up a booth at the fair.

Ed WX2R mentioned that the World Amateur Radio Day event was a big success with 29 people participating, of whom 25 got on the air. Ed said that we are printing new club brochures which will be ready for Field Day.

Brian KC2LCN announced that we need a net control operator for the May 13 session of our weekly Monday night net at 8:00 pm on the W2NPT repeater. Please contact Brian or sign up on the whiteboard in the club workshop for net control duty.

Bennett KO2OK reminded us that the BARA Hamfest will be on Saturday May 25 at the Westwood High School in Washington Township.

Karl W2KBF said that the Portable Day event in cooperation with BARA will be in Memorial Park in Fair Lawn on Saturday May 11. Karl said that he will conduct a micro fox hunt in the park around 11:00 a.m. and that all are welcome to learn about techniques for hidden transmitter finding.

Vice President Van W2DLT said that the Sussex Hamfest is on Sunday July 14. He said that he is inviting FLARC members to his annual Vanfest at his home in Lords Valley, PA following the Sussex hamfest. If you plan to visit Van, please contact him to confirm your attendance before July 14 so that he can let the gate guard know you will be coming.

May 2019 Business Meeting

Vice President Van W2DLT asked if there was any old business to discuss and there was none.

Vice President Van W2DLT asked if there was any new business for discussion.

Karl W2KBF announced the dates for the tape measure antenna project. He said that there would be a demonstration of the antenna at the Portable Day fox hunt on May 11. Karl said that members who want to build a tape measure antenna should send \$20 to Treasurer Al WA2OWL for the kit. He noted that on Thursday May 30 we would help a small group in constructing the antenna kit.

During Field Day on Saturday June 22, Karl W2KBF, John W2JLH and Randy WU2S will assist people in constructing the tape measure antenna as a special educational activity. Bennett KO2OK asked about the antenna's characteristics. Karl responded that the antenna is a 2-meter receive antenna that is built from lightweight PVC tubing and short sections of a steel tape measure. The Yagi antenna is useful in direction finding due to its RF pattern.

Steve WA2BYX asked if we are going to provide communications support for the Fair Lawn Memorial Day Parade. Randy WU2S responded that we will have a Fair Lawn ARES meeting at 6:00 p.m. on Friday May 10 at the Senior Center to discuss our plans for the parade.

Karl W2KBF announced that the Field Day Food Committee will be sending a questionnaire to FLARC members asking about their preferences for food for the Field Day dinner. Members will be asked to indicate how many people will be coming for dinner so that we buy the right amount of food.

Having no further business, Vice President Van W2DLT asked for a motion to adjourn. Zach KC2RRS so moved and John W2JLH seconded the motion. The members present voted in favor and the meeting was adjourned at 8:03 p.m.

Respectfully submitted,

Randy WU2S
Secretary

At Deadline: YouTube Club Data

Thom W2NZ reports that the Joe Taylor K1JT video is going viral.

In the last 28 days, 108 NEW Subscribers - we are at 244. More than DOUBLED!!!

Total views for the channel, 13.8K and 13,000+ view of Dr. Taylor's FT4 alone, not including the volume generated by the other 2 postings.

It is important for all FLARC members to continue to share our Channel's videos, by posting any viewed FairLawnARC.org video on their favorite Social Media Site.

We will never see the boost Dr. Taylor Presentation blessed us with again; however, we have solid, highly informative content that the Publicity Committee gift us with, by scheduling fantastic speakers for our Guest Series.

Additionally, we are getting better productions out, which you all should be proud of as this Channel is about our Club and its gratis gift to all of Ham Radio.

For what it's worth, W2NZ does not have a YouTube, Vimeo, etc. Channel of any type free or generating monetary value; Club members spreading their good fortune (our Channel Inventory) should be shared by them for our Club's benefit.

Thanks Thom!!

Always Pay Your Dues Or....



The Grim Reaper GR1M seen at Garretson Farm
(you can also make a contribution to the equipment fund!)

At Deadline: More Re: Hal N4GG/4

Van W2DLT reports the following:

The very first QSO in logbook #1 for WV2QPW, now N4GG, was W2DLT.

I now just restored a DX-20, just like what I started with on 1961 and wow is it fun.

Hal N4GG/4



N4GG's old gear restored.



May 4 FLARC Special Event Station W2G

It's not often something in Fair Lawn celebrates its 300th anniversary. FLARC helped the Garretson Farm and Forge Restoration celebrate, made friends and learned a lot about the history of this historic place. A thanks to 23 FLARC members who took part including two new members. All in all a great time -- Larry WA2ALY did his usual outstanding job entertaining and teaching Morse and the club made many special station contacts and new friends. We said we would do it again for the 400th anniversary so stand by.

Tnx to all for the pix! And see more of them on Facebook! [<http://facebook.FairLawnARC.org>]



Welcome to Garretson Farm



A group shot of just a few from FLARC who took part



Larry WA2LY helps one of the Garretson recreators brush up on her Morse code



Zack KC2RSS and the ever-present FLARC banner



The Garretson at 300 years on River Road



Larry WA2ALY and some of the many kids at his CW table

ED-ITORIAL: The Case For Field Day

I think we can all be proud of the advance preparation that the club undertook and the amount of participation involved for last year's Field Day. The results spoke for themselves. The annual ARRL exercise for "emergency preparedness" is far more than just a public relations effort by the League to promote the idea that hams are supposed to provide public service.

This year's event is especially relevant to the current efforts of many FLARC members. In the last year, the club has been the catalyst for the formation of both RACES and ARES groups; part of the backbone of EMCOMM services in times of need. The borough's support of the club is in large measure due to its public service activities that are showcased by an activity such as Field Day. It should not be dismissed as just another "contest" as it showcases public service, emergency preparedness and community service not only for ourselves but our overall amateur radio fraternity. The purpose of Field Day resides in our origination:

The FCC established amateur radio as a voluntary, non-commercial, radio communications service. It allows licensed operators to improve their communications and technical skills, while providing the nation with a pool of trained radio operators and technicians who can provide essential communications during emergencies.

This "provide essential communications during emergencies" clause is quite an extraordinary requirement asked by the government with regards to licensing. Nothing similar to it can be found in the license requirements for amateurs in the UK, Canada or Australia for example. US hams are expected to provide a pool of communicators in times of emergency.



ED-ITORIAL: The Case For Field Day

Emergency communications is the integral part of Field Day and was established by the ARRL for just that purpose. Certainly the recent example of Hurricane Maria in Puerto Rico provides the clearest example of amateurs successfully using their skills for essential communications; much of it learned from exercises such as Field Day. A quick review of 2018 shows other numerous examples of hurricanes, winter storms and wildfires in which amateur radio played a critical role in disaster management.

Does Field Day need to change as technology advances? Sure it does. 2019 is not 1933. And no doubt it will as 20th century hams wed to 20th century technology are replaced by 21st century amateurs who grew up and are facile with digital modes and whose skills are in better alignment with the needs of contemporary emergency service requirements that rely on radio.

We should not forget that the Field Day "contest" is the downstream result of essential planning, site preparation and execution over a short time period. Efficiently handling traffic is what is really at work at what we call "contesting." Somewhere, somehow, some of us have apparently lost the plot. Field Day is not about the "contest." It is an exercise about the total process. It is about preparedness. It is about traffic handling. Certainly it has the structure of a "contest" (points, classes, rankings, etc.) to provide interest and the broadest possible exposure to the amateur radio community but it is different from all other "contests" in its purpose, execution and public awareness. A quick search of Field Day press clippings reinforces its value to our communities. In these times of declining active amateur populations and rapid technological change it would be easy for the FCC to rethink the value of amateur radio if not for the case of what hams do on a continuing basis to justify the service and, as a result, your license.

There are contests nearly every weekend of the year so those who criticize the "public service" aspect of it might themselves want to add a new one and perhaps call it "Alternative Power Weekend". Go ahead, but it will not be Field Day.

DE WX2R